Report on the
Conditions and Prospects
of British Trade
in India
1926-27; 1927-28;
1930-31, 1932-33 & 1933-34

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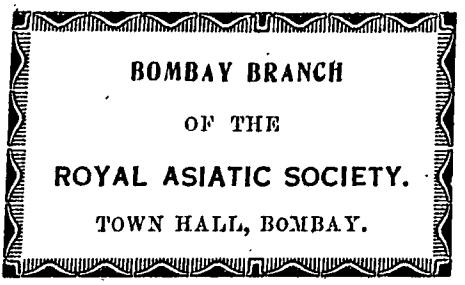

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DEPARTMENT OF OVERSEAS TRADE.

Report on the Conditions and Prospects of British Trade in INDIA

1926-27. #1927-28, 1930-31
1932-33 #1933-34

By THOMAS M. AINSCOUGH, C.B.E., M.Com., F.R.G.S.
His Majesty's Senior Trade Commissioner in India and Ceylon.

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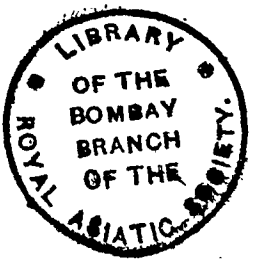

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DEPARTMENT OF OVERSEAS TRADE.

COMMERCIAL REPRESENTATION ABROAD.

To foster British overseas trade, the Department has developed and controls the following Services of Commercial Intelligence Officers :—

1. In the Empire.

The Trade Commissioner and Imperial Trade Correspondent Services.

At the present time there are 13 Trade Commissioners' offices. These are situated, four in Canada (Montreal, Toronto, Vancouver, Winnipeg); two in South Africa (Johannesburg, Cape Town); two in Australia (Melbourne, Sydney); two in India (Calcutta and Bombay—to cover also Ceylon); and one each in New Zealand (Wellington), British East Africa (Nairobi) and British West Indies (Trinidad).

The Trade Commissioners in the Dominions have the assistance of Imperial Trade Correspondents at a number of important centres.

In various parts of the Empire in which at present there are no commissioners, there are correspondents with whom the Department deals direct.

The Department is represented in India by Mr. T. Ainscough, O.B.E., H.M. Senior Trade Commissioner; Mr. W. D. Montgomery Clarke, H.M. Trade Commissioner, Calcutta; and Major R. W. Clarke, H.M. Trade Commissioner, Bombay.

2. In Foreign Countries.

(a) The Commercial Diplomatic Service attached to the British Diplomatic Missions.

This service consists of between thirty and forty posts in all, and the officers of the service are stationed in all the more important foreign markets of the world. The members of the Commercial Diplomatic Service are styled "Commercial Counsellors" in the highest grade, and "Commercial Secretaries" in the three lower grades. They are members of the staff of the British Embassy or Legation in which they serve.

The Commercial Diplomatic Officer has general supervision over the commercial work of the consular officers in his area, and, with the co-operation of these two services, a complete network of Government commercial representatives is thrown over foreign countries.

(b) The British Consular Service.

The service has been re-organised. Particular attention has been given to the commercial side of consular work.

Members of British firms are urged to call upon the Department's representative abroad when they visit an overseas country. It is also important that they should make a point of their representatives abroad keeping in close touch with the Department's officers.

A handbook giving fuller details of the overseas organization of the Department can be obtained on application at the Department of Overseas Trade, 35, Old Queen Street, S.W.1.

NOTE.

It should be understood that the views expressed in annual reports are the views of the officers themselves, and are not necessarily in all respects the views of the Department.

COVERING DESPATCH.

To the Right Honourable Sir Philip Cunliffe-Lister, K.B.E., M.P., President of the Board of Trade.

Office of H.M. Senior Trade Commissioner in India.
Fairlie House, Fairlie Place,
Calcutta.

August 1st, 1927.

SIR,

I have the honour to forward for your information a report on the conditions and prospects of British trade in India during the Indian fiscal year 1926-27.

This is the first of the annual reports written since the war in which is has been possible to strike a definitely optimistic note with regard to the import trade of this vast market. At the same time, many of the important and far-reaching changes which are taking place tend to weaken the British position in India and call for special efforts and revised methods and organisation in order to meet them. As in previous reports, it has been my aim not merely to state facts and tendencies, but, wherever possible, to comment on them and to advance practical and carefully considered suggestions.

I desire to acknowledge my indebtedness to the Officials of the Commerce, Industries and Finance Departments of the Government of India for their unfailing courtesy and assistance during the year. Special thanks are due to the Director-General of Commercial Intelligence and Statistics, the Chief Controller and staff of the Indian Stores Department and to the Collectors of Customs for their help and co-operation which have always been so willingly rendered. I would also like to record my appreciation of the numerous memoranda which have been contributed by Engineers and other Officers in charge of important works throughout the country and which have, in many cases, been incorporated with due acknowledgments in the report.

I have the honour to be, Sir,

Your most obedient servant,

THOMAS M. AINSCOUGH,
H.M. Senior Trade Commissioner in India.

PREFATORY TABLES.

NOTE.—*The author desires to express his indebtedness to the Director of Commercial Intelligence and Statistics for the particulars given in these tables.*

I.—TRADE DISTRIBUTION: PRINCIPAL ARTICLES.

TABLE SHOWING VARIATIONS IN THE SHARES OF THE PRINCIPAL ARTICLES IN THE IMPORT AND EXPORT TRADE OF BRITISH INDIA DURING THE LAST THREE YEARS, AS COMPARED WITH AVERAGES OF THE PRE-WAR AND WAR PERIODS.

IMPORTS (*in percentages*).

(Sea borne: exclusive of treasure and of imports on Government account)

	1909–14. *Average.*	1914–19. *Average.*	1924–25.	1925–26.	1926–27.
Cotton manufactures ...	36	35	33	29	28
Iron and steel	7	6	8	8	7
Machinery	4	4	6	7	6
Sugar	9	10	8	7	8
Railway plant	4	5	2	2	1
Hardware	2	2	3	2	2
Mineral oil	3	3	4	4	4
Silk	3	2	2	1	2
Other articles	32	33	34	40	42

EXPORTS (*in percentages*).

(Sea borne: exclusive of treasure and of exports on Government account).

	1909–14. *Average.*	1914–19. *Average.*	1924–25.	1925–26.	1926–27.
Jute, raw and manufactures	19	25	21	26	26
Cotton, raw and manufactures	15	16	27	28	23
Food-grains	21	17	17	13	13
Seeds	11	6	9	8	6
Tea	6	8	9	7	9
Hides and skins	7	8	4	2	2
Other articles	21	20	13	16	21

II.—TRADE DISTRIBUTION: PRINCIPAL COUNTRIES.

TABLE SHOWING VARIATIONS IN THE SHARE OF THE PRINCIPAL COUNTRIES IN THE IMPORT AND EXPORT TRADE OF BRITISH INDIA DURING THE LAST THREE YEARS, AS COMPARED WITH AVERAGES OF THE PRE-WAR AND WAR PERIODS.

IMPORTS (*in percentages*).

(Sea borne: exclusive of treasure and of imports on Government account).

	1909–14. *Average.*	1914–19. *Average.*	1924–25.	1925–26.	1926–27.
United Kingdom	63	56	54	51	48
Other parts of the British Empire	7	9	8	8	7
United States of America ...	3	7	6	7	8
Japan	2	10	7	8	7
Java	6	8	6	6	6
Germany	6	1	6	6	7
Other foreign countries ...	13	9	13	14	17

NOTE.—Imports from Germany during the quinquennium, 1914–19, consisted mostly of receipts in the early part of the official year 1914–15, and the residue of cargoes of prize vessels imported during the war period.

EXPORTS* (*in percentages*).

(Sea borne: exclusive of treasure and of exports on Government account).

	1909–14. *Average.*	1914–19. *Average.*	1924–25.	1925–26.	1926–27.
United Kingdom	25	31	26	21	21
Other parts of the British Empire	16	21	13	14	17
United States of America ...	8	12	9	10	11
Japan	8	11	14	15	13
France	7	4	5	6	4
Germany	10	1	7	7	7
Other foreign countries ...	26	20	26	27	27

NOTE.—Exports to Germany during the quinquennium 1914–19 were confined to the early part of the official year 1914–15.

*Including re-exports.

COMMERCIAL SUMMARY.

Area—	Sq. miles.
British India	1,094,300
Native States	711,032
Total	1,805,332

Population Census of 1921—	
British India	247,003,293
Native States	71,939,187
Total	318,942,480

Language (*Commercial use of English, etc.*)—English.

Monetary unit(*s*)—

3 pie = 1 pice.
4 pice = 1 anna
16 annas = 1 rupee.
1 lakh = Rs. 1,00,000
1 crore = 100 lakhs.
} e.g., Rs. 1,45,67,200 = 1 crore, 45 lakhs, 67,200 rupees.

Rate of Exchange (*pre-war and current average quotations*)—

Pre-war	1s. 4d.
Current. 30.6.27	1s. 6d.

Index Numbers—July, 1914 = 100.

Wholesale prices, Bombay	April, 1927 = 144.
Retail prices (food), Bombay	April, 1927 = 167.
Cost of living (European), Bombay ...	Jan., 1927 = 156.
,, ,, (working class), Bombay ...	May, 1917 = 152.

Principal weights and measures (*other than ordinary metric or British*) *with British equivalents.*

Weights and measures in India vary not only from district to district but also for different commodities within the same district, and though the railways have given a lead to the adoption of a uniform system, the country is so vast that the differences are likely to persist for many years to come. The principal units in all the scales of weights are the maund, seer and the tola, and the standard weights for each of these are 82·28 lbs., 2·057 lbs., and 180 grains troy. The tola is the same weight as the rupee. In addition to these weights, there is the viss of 3·60 lbs. or 140 tolas, and the candy of 500 to 840 lbs. It is not necessary for the purposes of this volume to detail any variation of the weight of the maund, except those which enter into the export trade. It will be sufficient to say that in any particular city there are probably as many different maunds as there are articles to weigh. The only varieties which need be considered in connection with the foreign trade are the Bengal or railway maund already specified, the factory maund of 74 lbs. 10 ozs. 11 drs., the Bombay maund of 28 lbs., and the Madras maund of 25 lbs. In October, 1913, the Government of India appointed a Committee to inquire into the whole question, and their majority report, which was presented in the following year, recommended the extension of the railway system based on the 180 grains tola, while the minority report advocated the adoption of the metric system. The views of the Provincial Governments on these reports were obtained and the Government of India in their Resolution dated the 3rd January, 1922, declared themselves in favour of the ultimate adoption in India, excluding Burma, of a uniform system of weights based on the scale

now in use on the railways. It has been decided that no new measures prescribing all-India measures of weight or capacity should be introduced at present, but that the Local Governments should take such executive action as they can to educate public opinion in favour of the standard maund and seer.

In the table below an attempt has been made to present within a small compass the principal weights and measures employed in the Indian export trade.

Principal weights and measures in use in the export trade.

Name of unit. General.	*British Imperial Value.*
Tola	180 grains troy.
Seer (Standard or Railway or India) ...	2·057 lbs.
Seer (Factory)	1 lb. 13·5 oz.
Viss	3·60 lbs.
Maund (Standard or 40 seers Railway or Indian)	82 lbs. 4 oz. 9 dr.
Maund (Factory)	74 lbs. 10 oz. 11 dr.

NOTE.—For local variations consult " Handbook of Commercial Information for India," by C. W. E. Cotton, C.I.E., I.C.S., 2nd Edition, 1924.

Total Imports—1st April, 1926, to 31st March, 1927.

	Rs.
Merchandise	2,31,40,66,344
Government Stores	9,59,76,127
Treasure	41,53,20,573
Total	2,82,53,63,044

Principal Imports.—Cotton manufactures, sugar, iron and steel, machinery.

Imports of merchandise from United	Rs.
Kingdom	1,10,58,12,651
,, ,, ,, United States of America	18,31,57,720
,, ,, ,, Germany ...	16,91,55,959
,, ,, ,, Japan ...	16,48,95,332
,, ,, ,, Java ...	14,33,08,008

Total Exports.—(Indian Merchandise) 1st April, 1926, to 31st March, 1927, Rs. 301,44,59,772.

Principal Exports.—Cotton, jute, grain, pulse, tea.

Exports of Indian merchandise to United	Rs.
Kingdom	63,77,40,714
,, ,, ,, Japan ...	41,00,87,961
,, ,, ,, United States of America	33,69,11,084
,, ,, ,, Germany...	20,23,97,783

Railway mileage.—31st March, 1926.

Railways owned by the State	27,429
Other railways	11,150
Total route mileage opened for traffic ...	38,579

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REPORT
ON THE
CONDITIONS AND PROSPECTS OF BRITISH TRADE
IN
INDIA,
1926—1927.

CHAPTER I.

GENERAL REVIEW OF THE PERIOD.

The trade of India during the past year has, generally speaking, been fairly good in face of many adverse factors. The heavy fall in the prices of jute and cotton resulted in a considerable contraction in the value of the country's exports of those raw materials. A small wheat crop, coinciding with increased consumption of wheat in the country itself as a result of greater prosperity in the Punjab, had the effect of reducing this valuable export to very small figures. On the other hand, shipments of tea were heavier owing to a larger crop. The monsoon, for the fifth year in succession, was on the whole a good one and the agriculturist enjoyed a prosperous year. Unfortunately, while the aggregate of the import trade shows a slight increase, the steady fall in the price of cotton textiles together with serious communal disturbances in Calcutta and elsewhere, prevented that revival in the piecegoods trade which had been expected as a result of several years of agricultural prosperity. Dealers steadily lost money on their purchases, stocks accumulated owing to the poor clearances resulting from Hindu-Moslem rioting in Calcutta and certain upcountry centres, and it was only the action of the Marwari Chamber of Commerce in Calcutta in restricting forward purchases which saved the situation from becoming most acute. The depression in the Bombay cotton industry was accentuated by the heavy fall in cotton values but the ultimate effect of a larger demand following on cheaper production should be favourable.

The exports of Indian produce and manufactures including re-exports fell by Rs. 76 crores or 20 per cent. to Rs. 309 crores On the other hand the total imports increased by Rs. 5 crores or 2 per cent. to Rs. 231 crores. The grand total of imports, exports and re-exports amounted to nearly Rs. 541 crores as compared with Rs. 612 crores in the previous year, a decrease of Rs. 71 crores or 12 per cent. The balance of trade in merchandise in favour of India fell from Rs. 161 crores to Rs. 79 crores. This was liquidated to the extent of Rs. 39 crores by imports of the precious metals, leaving a total visible balance of trade of just under Rs. 40 crores. Exchange remained fairly stable throughout the year in the region of 1*s.* 6*d.*

In my last report I alluded to the continuous strengthening of the financial position of the Government of India, year by year, as a result of greater prosperity and a far-sighted financial policy. This progress continues. The past financial year closed with a surplus of just over 3 crores and the Finance Member in his Budget for 1927/8 anticipates a further surplus of more than. 3½ crores. Sir Basil Blackett stated in March that since the end of the financial year 1923-24, the last year in which a sterling loan was issued, up to 31st March, 1927, the Government of India spent outside India £26·2 million for purposes of capital outlay and £9·9 million on reduction of sterling debt, a total of £36·1 million. The whole of this outlay was financed without external borrowing. During 1927/8 they expect to spend £8·7 million on capital account outside India and £2·7 million on the reduction of sterling debt, a total of £11·4 million. If, as is confidently hoped, a sterling loan can be avoided in 1927/8, India will have covered about £48 million of capital disbursements outside India without borrowing abroad.

This wonderful improvement in India's financial position has been reflected in the steady rise in the price of Indian Government securities both in the Indian and London markets, and also in the rates at which Government loans are now raised in India. The present loan, which is subject to tax, bears interest at 4 per cent. and is issued at Rs. 94/8/-. It is repayable at par on August 1st, 1937, but the Government of India reserve the right to repay it, or any part of it, at par on or after August 1st, 1934, on giving three months notice. It is mainly a conversion issue, as subscriptions are invited in 6 per cent. Five-year bonds 1927 and 5½ per cent. War bonds 1928 as well as in cash. Par value *plus* a cash bonus of Rs. 6-4 is granted in the case of the former and par value *plus* a cash bonus of Rs. 12 in the case of the latter security.

Perhaps the most noteworthy event of the year was the stabilisation of the rupee in relation to gold. Following upon the recommendation of the Royal Commission on Indian Currency and Finance, the Indian Currency Bill, after being carried through the Legislative Assembly by a somewhat narrow margin of votes, was passed into law in March, 1927. It established the ratio of 1*s*. 6*d*. by enacting that Government would purchase gold at a price of Rs. 21-3-10 per tola of fine gold in the form of bars containing not less than 40 tolas and would sell gold or, at the option of Government, sterling for immediate delivery in London at the same price after allowing for the normal cost of transport from Bombay to London. A rate of 1*s*. $5\frac{49}{64}$*d*. was notified as Government's selling rate for sterling to meet these obligations.

The fixation of the exchange rate at 1*s*. 6*d*. will give the greatest possible stimulus to the overseas trade of the country, as it will eliminate that element of uncertainty and speculation which

is such a handicap to the transaction of sound business. It is not desirable here to enter into the controversy as to whether a rate of 1*s.* 4*d.* or one of 1*s.* 6*d.* is the more advantageous to Indian economic interests. Those who are interested in this point would do well to read the Finance Member's able and lucid explanation of the position in the Assembly on March 7th. The outstanding advantage to the trader is stability, and there are clear signs that confidence has already been restored among the mercantile community and that they look forward to that improvement in foreign trade, which appears to be imminent, without any misgivings on the question of exchange.

The internal movements of merchandise during the year were seriously interfered with by the outbreaks of communal disturbances in Calcutta and other places in the Ganges Valley during the spring of 1926. The Hindu-Moslem riots in Calcutta between April and July, which involved the closing of the bazaars, caused such a feeling of insecurity that mofussil dealers kept away from the city, clearances were held up, there was no demand for ready goods and prices consequently fell away. Although the tension between the two communities is still acute, there have so far been no serious outbreaks this year and the great Moslem festivals of the Bakr-id and Mohurram have passed without any untoward events.

Apart from these communal troubles, the general political situation has undoubtedly improved. Although there is still a keen desire on the part of all political parties that the steps towards self-government should be greatly accelerated, there is also a growing realisation that this can only be achieved by constitutional methods and constructive co-operation with the Executive towards the desired end.

The Outlook in the Import Trade.—The outlook in the import trade is brighter than it has been at any time during the past five years. The country generally is in a prosperous condition as a result of five successive good monsoons. Imported goods, particularly textiles, have not been purchased on a considerable scale for years, consequently stocks are light throughout the country districts and there is an accumulated reserve of purchasing power, which is likely to be translated into actual buying as soon as it is realised that prices are on a safe level. A study of the index numbers of prices of imported cloth and of India's export products shows that the disparity between the two has been rapidly narrowing. In December-January last a large trade was done for India and this trade would have continued if Lancashire prices had not stiffened. Fortunately, the rise in price in the Manchester markets protected the purchases already made from being subsequently undersold and dealers, for the first time for years, have made good profits on their imports, which in many cases have been cleared from the ship's side

straight into consumption. The months of July and August 1927 should see a large business in piecegoods for November, December and January shipment, provided that the rise in prices as a result of higher rates for raw cotton and the activities of the Cotton Yarn Association do not result in a further curtailment of activity.

The official forecast for the south-west monsoon of 1927 is a most optimistic one. The Director-General of Observatories on June 8th stated that the monsoon rainfall was likely to be normal or in excess in the Peninsula and north-west India and normal in north-east India. The indications point to abundant and well-distributed rains throughout the country.

The engineering industries are bound to benefit from the large schemes of railway construction, harbour development, irrigation and hydro-electric enterprises and bridge building, which are dealt with in detail in chapter V and elsewhere in this report. The remission by the Government of India of the provincial contributions, which have hitherto been such a heavy tax on local governments and have seriously retarded their development, is almost certain to result in long deferred programmes of public works, such as roads, bridges, buildings, canals, etc., being undertaken in the near future. The movement is already noticeable and will probably gather force when it is realised by the Provincial Governments that at last they have the necessary funds for these important works. The extent to which British engineers will be successful will largely depend upon their readiness to adapt their Indian organisation to the changing methods of purchase, which are outlined in chapter IV. There will be a steadily increasing demand in India for plant and machinery of all kinds, for although foreign competition is keener than ever before, there is no reason why British firms should not continue to secure the preponderating share of this business if only they will give efficient service on the spot.

In the iron and steel trades, competition from the Continent and also from the Tata Iron and Steel Works is likely to increase. British makers still control the sheet trade and contribute largely to the imports of structural steel, bridgework etc. It is anticipated that the lower rates of duties now imposed on British standard steel will result in increased shipments of structural sections rolled to the British standard specification and that engineers in charge of important public works will be only too glad to use the more reliable British steel if the disparity in price is greatly reduced or eliminated.

With few exceptions, Indian industries have passed through a period of severe depression during the past few years. There are signs, however, of some improvement which will stimulate the demand for the countless miscellaneous items of equipment,

plant and stores, which—in the aggregate—amount to a very large sum and constitute a valuable British trade.

To summarise, all the criteria usually taken in compiling this annual forecast are this year distinctly favourable. India stands to-day on a firmer economic basis than she has ever done. Her credit, both internal and external, has never been so good. Recurring surpluses, once the provincial contributions are finally remitted by 1929, will probably be applied to the reduction of taxation, when it is hoped that favourable consideration will be given to the reduction of certain of the import duties which bear heavily on trade expansion. Exchange has been stabilised at 1*s.* 6*d.*, a rate which is, comparatively speaking, favourable to the import trade. The agriculturist is prosperous and has probably a greater reserve to-day than he has ever had. The prospects for this year's crops are excellent. The stocks of imported goods, notably of textiles, are light, and large purchases of them are overdue. All these factors point to a revival in the import trade during the next twelve months. The only doubtful factor is the risk of internal disorder, due to Hindu-Moslem antagonism. There are signs, however, that communal feeling is slightly more restrained, thanks to the vigilance of the police and the efforts of the leaders of both parties to control their co-religionists.

General Position of British Trade in India. — The following table, compiled by the Director of Statistics, clearly shows the percentage shares of the United Kingdom, the British Empire as a whole, and the principal foreign countries in the trade of India during the fiscal year 1926/7 as compared with the previous year and the last complete pre-war year :—

	Imports.			Exports, including re-exports.			Total Trade.		
	Pre-war average.	1925-26	1926-27.	Pre-war average.	1925-26.	1926-27.	Pre-war average.	1925-26.	1926-27.
	Share per cent.	Share per cent.	Share per cent.	Share per cent.	Share per cent.	Share per cent.	Share per cent.	Share per cent.	Share per cent.
United Kingdom	63	51	48	25	21	21	40	32	33
British Possessions	7	8	7	16	14	17	12	12	13
TOTAL BRITISH EMPIRE ...	70	59	55	41	35	38	52	44	46
TOTAL FOREIGN COUNTRIES	30	41	45	59	65	62	48	56	54
Principal Countries.									
BRITISH EMPIRE—									
United Kingdom	62·8	51·4	47·8	25·1	21·0	21·5	40·0	32·1	32·8
Ceylon	·5	·7	·6	3·7	3·9	4·8	2·4	2·8	3·0
Straits Settlements	2·1	2·5	2·5	3·4	2·6	3·1	2·9	2·6	2·8
Australia	·7	·6	·7	1·4	2·0	2·5	1·1	1·5	1·8
Hongkong...	·7	·4	·4	4·1	·8	1·0	2·7	·6	·7
Other British Possessions ...	2·9	3·5	2·9	3·4	4·9	5·6	3·2	4·4	4·4
TOTAL BRITISH EMPIRE	69·7	59·1	54·9	41·1	35·2	38·5	52·3	44·0	45·5
Foreign Countries.									
Germany	6·4	5·9	7·3	9·8	7·0	6·6	8·5	6·6	6·9
United States	3·1	6·7	7·9	7·5	10·4	11·1	5·8	9·0	9·7
Japan	2·5	8·0	7·1	7·5	15·0	13·3	5·5	12·4	10·7
Java	6·4	6·2	6·2	1·3	1·2	1·0	3·3	3·1	3·2
France	1·5	1·4	1·5	6·6	5·5	4·5	4·6	4·0	3·2
China (exclusive of Hongkong and Macao)	1·1	1·2	1·4	3·9	4·0	3·7	2·8	3·0	2·7
Belgium	1·9	2·7	2·9	5·3	3·2	2·9	3·9	3·0	2·9
Italy	1·0	1·9	2·7	3·2	5·0	3·7	2·3	3·8	3·3
Other Foreign Countries	6·4	6·9	8·1	13·8	13·5	14·7	11·0	11·1	11·9
TOTAL FOREIGN COUNTRIES ...	30·3	40·9	45·1	58·9	64·8	61·5	47·7	56·0	54·5
TOTAL	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0

The steady reduction in the United Kingdom's share of the import trade is a matter for serious concern. During the last five pre-war years, imports from the United Kingdom averaged 63 per cent. of the total imports into India. In the short-lived boom of 1920 the British proportion again reached 61 per cent., but since then there has been a steady fall year by year. In 1923/4 the figure was 58 per cent., in 1924/5 54 per cent., 1925/6 51 per cent. and 1926/7 48 per cent. *In the short space of three years the United Kingdom's share has fallen by no less than 10 per cent.*

The percentage figure of 48 quoted above represents the British share of the total imports of all kinds, including raw materials and comestibles such as mineral oils, ores, raw cotton and wool, sugar, spices, etc., in which the United Kingdom has no direct interest. Taking the imports of articles wholly or mainly manufactured, we find that the British share in 1913/14 was just under 76 per cent. while in 1926/7 it had fallen to 65 per cent. It should be noted, however, that even the imports of manufactured goods include items such as Chinese and Japanese silk pongees, matches, very low grade earthenware, glassware, toys, etc., in which British manufacturers do not compete. After eliminating these articles, I estimate that Great Britain still supplies nearly 70 per cent. of the imports into India of competitive manufactured goods.

The year 1926 was an abnormal one for British industry as it included the General Strike and the prolonged coal stoppage, which seriously affected most of the export trades. In the circumstances, it is remarkable that the British exports to India were so well maintained and that our proportion of the whole was not even lower.

It is a great potential source of weakness that the United Kingdom should only take from India less than one half the value of the goods which she exports to India. During the war, owing to the large supplies of foodstuffs and produce required for the armies in the field, and to the elimination of purchases by the Central Powers, she was able to increase her share of India's exports from 24 per cent. in 1913/14 to 30 per cent. in 1919/20, but during the past two years the figure has remained constant at 21 per cent., which is 4 per cent. below the pre-war average. Apart from economic laws, there is a growing tendency all over the world for a country to purchase its imports from those countries which are the most important customers for its own products. India's most important markets apart from the United Kingdom are Germany, the United States, Japan, Italy and France and there is every likelihood that she will tend to buy more and more from those countries. Hitherto the account has been settled by triangular trade, e.g., the United States makes a large portion of her payments to India by using her credits in

London. The tendency, however, is for these accounts to be settled by shipments of goods. Consequently, in the interests of the British export trade, every effort should be made to stimulate imports of Indian produce and manufactures into the United Kingdom and to retain our valuable entrepôt trade which has—in the past—been of incalculable benefit in stimulating British exports.

The decline of the British share in the total import trade of India is due in the first place to the increased imports of certain foodstuffs and raw materials, such as sugar, spices, certain oriental provisions, raw cotton, wool, and silk, mineral oils, gums, and timber, which are not produced in the United Kingdom.

Secondly, it is attributable to the temporarily reduced demand for British specialities such as cotton piecegoods, textile machinery, railway plant, boilers, and certain other types of machinery, which normally form such a large proportion of the total British shipments that any material decrease in the offtake affects the British proportion of the total trade. It is reasonable to suppose that if there is a revival in Indian industry and particularly in the demand for imported textiles, the British percentage of the whole trade will be increased by several points.

Thirdly, the Indian market since the war has been very slowly adjusting itself to the higher post-war level of prices of imported goods. Speaking generally, the great majority of Indian consumers have only a very small margin of means to spend on imported cloth and other commodities. British manufactured goods are usually articles of good quality and fine workmanship, the price of which has advanced in greater proportion than that of most goods, owing to the heavy overhead charges and increased labour costs in the United Kingdom. The Indian consumer has, therefore, been forced either to substitute cheaper qualities of foreign or local manufacture or else to practise economy and reduce his requirements, a habit to which he became accustomed during the war and which is likely to continue for some time. It may be said that the volume of India's requirements is in inverse ratio to their price. This is particularly noticeable in the case of cotton goods. If the Lancashire grey cloth index number remains round about 140 to 150 (i.e. 40 to 50 per cent. above pre-war rates), a large volume of trade will probably result, as it is believed that India can afford to pay these prices without unduly restricting the scale of quantities. Any attempts to maintain rates artificially above what India can afford to pay can only result, in the future as in the past, in stifling demand, in bringing about the substitution of cheaper Indian mill cloths of lower quality, and in playing into the hands of Japan and Italy.

Lastly, foreign competition is becoming an increasingly serious menace. The reduction of 15 per cent. in the British

share since the outbreak of war in 1914 is exactly accounted for by a corresponding increase in the combined share of our principal competitors Germany, the United States, Japan, Belgium and Italy. The outstanding features of the year 1926/7 have been intensified German competition in machinery, metals, hardware, cutlery and the countless cheap products for the bazaar trade; increased shipments—although there was a slight reduction in the values—of cotton piecegoods from Japan; heavier imports of Belgian iron and steel; larger purchases of Italian coloured piecegoods and artificial silks; and increased arrivals from the United States of raw cotton, motor vehicles, provisions and railway plant.

Foreign competition now enters into practically every trade. German, Belgian and other Continental exporters are opening up numerous branches in India and there are more foreign travellers visiting the country than there are British. Agents for United States firms are widely advertising American products at the expense of their principals. On all hands one sees determined efforts to secure a footing in trades which have hitherto been almost exclusively British. The subject is so important that I have devoted chapter II to a study of the measures required to meet the situation with special reference to the question of improved marketing organisations in India.

Some Weakening Factors. — (1) One of the most serious disabilities suffered by British firms is the fact that in the bazaars throughout the East low price and showy appearance are greater desiderata than quality, durability or value for money. Even before the war, Continental prices were lower than British quotations for most cheap bazaar lines, but dealers were willing to pay a slight premium for British quality, which was recognised, and we held a large share of the trade. Owing to the great increase in the cost of production in the United Kingdom since the war, British prices of these low-grade articles have risen to such an extent that they are beyond the purchasing power of the masses. In many articles of hardware and sundry goods, Continental makers can now underquote to the extent of 15 to 30 per cent. The goods sold are probably of greatly inferior quality, but they serve their purpose and, moreover, the Indian importers, dealers and other lesser middlemen are usually able to make greater profits in these goods, as they are dealing with consumers who cannot always judge intrinsic value and so long as the article is lower in price than their previous purchase, they will accept it. One hears of numerous claims for inferior quality, finish, etc., but dealers admit that these only occur in a very small proportion of their transactions and are more than offset by the increased margins they make on the goods.

The only remedy would appear to lie in the establishment of separate plants for the manufacture by mass production of the

cheapest types of articles suited to the trade. These goods should be marketed under entirely new names and trade marks, as it would be fatal to compromise the reputation for quality which our well-known marks have acquired after a century of trading. The extent of the demand for such articles is enormous, as it includes not only India but also practically all markets in the Near and Far East and a great part of South America. The only doubtful factor would seem to be whether, even with every labour-saving device, it would be possible to produce with British labour as economically as the Continental manufacturer can with his lower-paid workers.

(2) There is little doubt that our marketing methods in India in many cases require very drastic overhauling in order to bring them into line with rapidly changing conditions. The pivot of the system in the past has been the British export merchant in London, Glasgow and elsewhere who worked through his own house in India, employed agents, or merely purchased on commission for correspondents throughout the country. This system worked extraordinarily well for many decades, but it had the great defect that the actual manufacturer of the goods knew nothing of the conditions in overseas markets. Moreover, the exporter in London and other cities usually placed his orders with the maker who submitted the lowest quotation, with resultant gradual lowering of quality. Finding that Continental prices were frequently cheaper still the British shipper introduced Continental goods into his markets and placed his organisation in the East at the disposal of foreign manufacturers, provided that they were lower in price. A very large proportion of the Continental trade with India is still being conducted by British export merchants in London, but even they are now being ousted by the Continental merchant or manufacturer who, when he can, deals direct. British trade owes a great deal to the home export merchant, particularly in those cases where he had his own branch offices in India. He has borne the brunt of slumps and financial crises and has taken the credit risk from the shoulders of the manufacturer. The time appears to have come, however, when, in order adequately to work the Indian market, the home shipper will be obliged to open offices in India and establish a sales organisation on the spot.

The number of efficient, modern selling organisations adequately covering the Indian market is extraordinarily few. In the case of heavy machinery and plant of all kinds the manufacturers have in most cases established their own branches staffed with both commercial men and engineers. In the great majority of cases, however, British manufacturers have been content to leave the matter in the hands of their mercantile agents in India, who in most instances have too many irons in the fire to give close personal attention to any one agency.

The only solution is for the manufacturer to take a personal interest in the market and to realise that, without the expenditure of capital, he cannot hope to have his goods adequately distributed. In a certain number of instances, where business is conducted on a large scale, a branch in India is indicated. In other cases, and particularly where a complicated appliance or piece of machinery is being sold, the maker should attach his own expert to the staff of the agent so that technical advice may be available on the spot. Where the manufacturer employs agents for the sale of a non-technical article, he should realise that it is too much to expect any local firm to undertake heavy expenditure on travelling, advertising and propaganda work for a mere 5 per cent. commission on sales. In the case where a traveller is employed who is either resident in India or visits the country each cold weather, it must be borne in mind that a subsidy is required to cover advertising and other propaganda expenditure including travelling, and the manufacturer should make it his business to make sure that this subsidy is spent in the right way.

In conclusion, the manufacturer should realise that he has an interest in his goods until they reach the consumer. Unless he is prepared to put in a sales organisation himself or to insist that his agents should maintain an efficient organisation, he will run the risk of losing the trade. In my report for 1919 I dealt with this question of representation at some length. In chapter II I also touch on certain aspects of it. Further detailed information and advice, including the names of, and particulars concerning, prospective agents can be obtained from the Indian Section of the Department of Overseas Trade, 35, Old Queen Street, London, S.W.1. Finally, I would strongly advise British manufacturers, who have interests in this market, to make a cold weather visit and see for themselves the far-reaching changes which are taking place. They will then appreciate the greater efforts required to maintain our economic position in India. Although British merchants were the first in the field and have hitherto enjoyed the bulk of the trade they are, perhaps for that reason, less inclined to revise their methods to meet changing conditions than a newly-established foreign house, starting from zero, which must either secure business or fail. In India the attacker can always attract a certain amount of trade away from a vested interest by underquoting, giving slightly better terms, and playing on the political and racial feelings of the dealers.

(3) The promulgation of some form of rupee tender system for the purchase of Indian Government stores would stimulate the tendency to transfer a very substantial part of the enormous annual stores purchases of the Government of India from London to India. In his report for 1925-26, the Director-General of the India Store Department, London, states that his actual expenditure on stores and freight during that year was £6,533,307 (in 1920-21 the figure

was over £13,000,000). Excluding stores obtained through other Government departments, the total value of the purchases made in London from British manufacturers during 1925/6 amounted to £4,278,333. These figures give an idea of the scale of the business.

So long as Government stores were purchased by the Director-General of Stores, London, British makers enjoyed a considerable advantage by reason of the fact that they were on the spot completely understood the procedure, and a manufacturer in any part of the Kingdom could be called to London for an interview in less than 24 hours. They had thus a considerable initial advantage over their foreign competitors. Now that purchases are being made in India, a local organisation will require to be built up in this country which is competent to prepare tenders, advise the purchasing departments on technical points and supervise the erection and running of plant. The same standard of service will be called for in India as was formerly given in London. There is little doubt but that British manufacturers will respond to the need and will in due course take steps to perfect their Indian organisation. Most machinery firms have already taken action to meet the requirements of the Indian Stores Department during the past few years and are giving excellent service. Many suppliers of railway requirements, however, do not yet possess any branches or technical agencies in India and would do well to study chapter IV which deals with the position in detail. *The point which I wish to emphasise is that British and foreign firms are now on an equality in tendering for these Government stores.* The foreign firm which has an established organisation in India, can quote competitive rates, and give equal service, stands an even chance of securing the business.

This transfer of purchasing power from London to India is not confined to the central purchasing departments of the Government of India and provinces other than Governors' provinces. It is expected that Governors' provinces will be only too glad to avail themselves of a central purchasing authority in India. The company-operated railways are already buying more through their local Stores Controllers and less through their London Offices and consulting engineers. This is equally true of the harbour authorities, municipalities and other public bodies. Even the private merchant firms, who—particularly in Calcutta—formerly placed nearly all their requirements of imported stores by indent on their London Offices, are now exploring sources of supply in India. Many of them are interested in local industries. Others consider that, in some instances, they are able to buy to better advantage, while some probably prefer the greater independence and latitude. The transfer in many cases of the head offices from London to India may to some extent have encouraged this tendency.

Provided that British suppliers and exporters recognise these changed conditions and expand their Indian organisations to meet them, all will be well. The fact remains, however, that there is an undoubted weakening of the London connections, which cannot, in the long run, be to the advantage of United Kingdom firms.

(4) Conditions in India in certain directions approximate more closely to those prevailing in the United States than they do to a small, densely populated region such as the United Kingdom. Distances are vast, the railways have very long leads, great rivers require to be bridged, and irrigation schemes are on a grand scale. It is natural, therefore, that American engineering practice, which has dealt with similar problems in the States, should derive some advantage in India. One of the principal reasons for the local success of the American motor vehicle has been that it has been designed to meet at home more or less similar conditions to those ruling in India. American engineers have had great experience in their own country in dealing with, for instance, excavating machinery, logging and sawmilling plant, and steel trestle bridges. The Indian railways are considering the adoption of automatic centre buffer couplers for their rolling stock, which are not used in England but are universal in the States. The headlights so far fitted to Indian locomotives are all of American origin, largely because there had hitherto been no large demand for loco headlights in Great Britain and British manufacturers were not able to take the matter up in time. British makers are competing successfully in most of the above items as a result of careful study of local conditions, but the scales were weighted against them in the earlier stages.

(5) Lastly, there is the political factor. During the period of transition in the development of self-governing institutions in India, it is only natural that considerable political feeling should be engendered from time to time against the governing power. Such an outburst occurred from 1919 to 1922, but has since gradually subsided. That British trade was not more adversely affected was due firstly to the fact that the agitation coincided with the depths of the slump, when there was a glut of imports in the country, and secondly to the Indian's lack of sentiment in private business. In those public bodies where Indian members predominated, e.g. in most of the municipalities, a determined effort was made to prevent the acceptance of British tenders. The outstanding example was the Bombay Corporation. The effort was not so successful as might be supposed, inasmuch as the existing plant in most cases was of British design, based on standard home practice, and it was not considered wise or economical to depart from these standards in the case of renewals. British manufacturers should realise, however, that in Indian commercial circles, there is very little sentiment of any kind shown in the transaction

of business. Price is the controlling factor. It is exceedingly doubtful whether our foreign competitors have scored to any material extent from political feeling. That feeling has probably been of assistance to them in strengthening their connections in the market, particularly in the case of Germany since the war, but the business secured has, in most instances, been obtained owing to lower quotations or other solid advantages to the buyer.

The Balance of Trade. — The Officiating Controller of the Currency in his lucid report for 1926/7, on which I have freely drawn for the ensuing comments, gives the following statement which compares India's visible balance of accounts during the year with that of the two preceding years and with the average of the three preceding quinquennial periods. The detailed figures work up to a plus or minus balance (*plus* representing net export and *minus* representing net import) for each of the three main heads of classification, namely (1) private imports and exports of merchandise, (2) private imports and exports of treasure, and (3) remittances through Government; and lead up to a *plus* or *minus* total for the transactions as a whole.

	Average of 5 pre-war years ending 1913-14.	Average of 5 war years ending 1918-19.	Average of 5 years ending 1923-24.	1924-25.	1925-26.	1926-27.
			In lakhs of Rupees.			
Exports of Indian merchandise (private)	+2,19,50	+2,15,98	+2,85,68	+ 3,84,66	+3,74,84	+3,01,45
Re-exports of Foreign merchandise (private)	+ 4,62	+ 8,16	+ 15,62	+ 13,51	+ 10,49	+ 8,01
Imports of Foreign merchandise (private) (*b*)	−1,45,85	−1,47,80	−2,48,81	− 2,43,16(*b*)	−2,24,20 (*b*)	−2,30,17 (*b*)
Balance of Trade in Merchandise (private)	+ 78,27	+ 76,34	+ 52,49	+ 1,55,01	+1,61,13	+ 79,29
Gold (private) (a)	− 28,86	− 7,81	− 13,93	− 73,93	− 34,85	− 19,40
Silver (private) (a)	− 7,21	− 2,99	− 11,79	− 20,06	− 17,15	− 19,79
Currency notes (private) (a)	—	—	− 40	− 28	+ 12	− 14
Balance of Transactions in Treasure (private) (a) ...	− 36,07	− 10,80	− 26,12	− 94,27	− 51,88	− 39,33
Total visible Balance of Trade	+ 42,20	+ 65,54	+ 26,37	+ 60,74	×1,09,25	+ 39,96
Council bills and telegraphic transfers paid in India, purchases of sterling from banks and firms in India and payments for sterling taken over in London from local bodies	− 41,35	− 34,96	− 15,45	− 56,35	− 61,24	− 2,82
Sterling transfers on London sold in India	+ 5	+ 5,50	+ 9,42	—	—	+ 1,93
Transfers of Government securities	− 87	− 38	− 5	− 38	− 1,27	+ 3
Interest drafts on India in respect of Government of India securities	− 45	− 30	− 31	− 41	− 36	− 34
Balance of Remittances of Funds	− 42,62	− 30,14	− 6,39	− 57,14	− 62,87	− 1,20
Total visible Balance of Accounts	− 42	+ 35,40	+ 19,98	+ 3,60	+ 46,38	+ 38,76

(*a*) Excludes transactions which do not enter into the balance of trade.
(*b*) Exclusive of the value of Railway materials imported direct by State Railways working under company management.

When one takes into account the sum of Rs. 2,74 lakhs, being the net payment in India of money and postal orders, and Rs. 1,85 lakhs, representing telegraphic transfers on India from Iraq, the visible balance in favour of India is reduced to Rs.34,17 lakhs as against a favourable balance of Rs. 41,52 lakhs in the previous year.

The Controller states that there are innumerable items entering into the balance of accounts—remittances for foreign investment, insurance, domestic expenditure of the non-domiciled community and the education of Indian students abroad on the one side of the account, and for investment in India and tourist expenditure on the other, to mention only the more important. These obviously cannot be calculated with any approach to accuracy, but it is sufficient for purposes of this report to confine the statement to those factors, such as Government remittance and trade and treasure transactions, which are capable of more or less accurate appraisement, and to leave the balance to show the net effect of the other items. These annual balances are subject to violent fluctuation, as the following figures show :—

1923-24.	1924-25.	1925-26.	1926-27.
Rs. (lakhs) +53,24	Rs. (lakhs) −9.7	Rs. (lakhs) +41,52	Rs. (lakhs) +34,17

One reason for this is that a large part of the transactions which are shown in the account are not paid for in the same year. The forward market in Indian exchange is highly organised, and an exceptional import of bullion may take more than a year to percolate to the ultimate holder. For this reason, the average of the three preceding years, showing a favourable balance of 31,32 lakhs, affords a better basis for comparison.

The Royal Commission on Indian Currency and Finance. — The recommendations of the Royal Commission have had such an important influence on the course of events that, before dealing with the movements of exchange during the period, it will be as well briefly to review the action taken on the Commission's report. The Controller succinctly summarises the position in the following terms :—

" The main features of the Report were :—

(1) The stabilisation of the rupee in relation to gold. The ratio recommended was 1*s.* 6*d.* or a rate of 8.47512 grains of fine gold per rupee.

(2) The removal of the control of Indian currency from Government to a new central banking institution to be called the Reserve Bank of India, which would be entrusted with the control not only of exchange and currency policy, but also of internal credit in India.

In accordance with the recommendations of the Commission, the Government of India proposed to introduce temporary legislation in the summer session of the Legislature to give effect to the recommendations for the maintenance of exchange and the stabilisation of the rupee in relation to gold pending the creation of the Reserve Bank.* As, however, it was considered that the Legislature had not been given sufficient time to consider

* The measure for the Reserve Bank is being held over.

the question it was decided to defer a decision until the spring session. In the meantime Government undertook to take such steps as were necessary to keep exchange between 1*s.* $6\frac{3}{16}$*d.* and 1*s.* $5\frac{3}{4}$*d.* The Indian Currency Bill of 1927 was presented to the Legislature in the spring session and passed into law in March, 1927. It established the ratio of 1*s.* 6*d.* by enacting that Government would purchase gold at a price of Rs.21-3-10 per tola of fine gold in the form of bars containing not less than 40 tolas and would sell gold or, at the option of Government, sterling for immediate delivery in London at the same price after allowing for the normal cost of transport from Bombay to London. A rate of 1*s.* $5\frac{15}{16}$*d.* was notified as Government's selling rate for sterling to meet these obligations.

In the interval between the publication of the report and the passing of the Currency Act, public interest was largely concentrated on the question of the ratio to the comparative neglect of the recommendations regarding banking. At the same time, bills were drafted in substantial conformity with these recommendations for the creation of a Reserve Bank of India and for the remodelling of the Imperial Bank of India Act. At the end of the year under review they were under reference to a Joint Committee of both Houses of the Legislature."

The Course of Exchange. — Telegraphic transfers on London fluctuated between 1*s.* $5\frac{3}{4}$*d.* in November and December, 1926, and 1*s.* $6\frac{1}{32}$*d.* in December, 1926, and January, 1927. The financial year ended on March 31st with a rate of 1*s.* $5\frac{29}{32}$*d.* The Controller states that at the end of March, 1926, exchange was gradually weakening owing to demands for sterling on bullion account, and slackness in the export rate, and closed at 1*s.* $5\frac{15}{16}$*d.* The beginning of the year showed a further drop owing to a speculative demand on bullion account, based on rumours as to the rate to be fixed by the Royal Commission on Indian Currency and Finance and the anticipation that the report would be issued at an early date. The high price of gilt edged securities in India also led to a considerable flow of remittance for the purpose of investment in sterling securities, a tendency which was increased by the speculative chance of capital appreciation in the event of a fall in exchange. To prevent these speculative movements causing a break in exchange, the Government of India informed the market on the 8th April that it was prepared to sell sterling at 1*s.* $5\frac{3}{4}$*d.* The effect was immediate. The rate rose at once to 1*s.* $5\frac{29}{32}$*d.* without Government having to come out as an actual seller at all. This removed the speculative element and exchange continued fairly steady until the end of June, when easy money and the fall in exports brought rates down again to a minimum of 1*s.* $5\frac{27}{32}$*d.* in July. The rate moved up again sentimentally on the report of the Currency Commission and was strengthened by the announcement of Government that it was prepared to maintain exchange between the upper and the lower gold points of 1*s.* $6\frac{3}{16}$*d.* and is 1*s.* $5\frac{3}{4}$*d.* until a decision was reached by the Legislature on the ratio recommended by the Commission. The lateness of the monsoon and a heavy drop in the world prices of the main agricultural staples of India prevented any revival in activity and exchange moved gradually to a point at which Government had to sell sterling in support of exchange. £1,425,000

was sold in this way between the 1st and 9th December. In January conditions changed with the arrival of the busy season in cotton, and rates moved up until Government was in a position to buy. Rates, however, again fell away with a slight revival in March due to the passing of the Currency Act and to money stringency. This enabled Government to purchase a certain amount, but rates again fell away as stringency relaxed towards the end of the month.

Government Remittances.—As was the case during the previous year, the method of remittance was entirely by purchases of sterling in India and no Council Bills were offered for sale.

Money Market Conditions in India during the year.—The Controller states that the year opened with every indication of even easier money than in the previous year, which itself had been easier than any year since the war. The bank rate stood at 6 per cent., and though the Government of India contracted 8 crores of rupees the contractions had no noticeable effect on the situation. Government securities rose rapidly, 3½ per cent. paper rising from Rs. 74-6 at the beginning of April to Rs. 78-8 at the end of May, at which level it remained with minor fluctuations for the rest of the year. The Imperial Bank of India rate might have been lowered earlier but for the general strike in England, which helped to postpone the reduction to 5 per cent. till the 20th of May. By this time call money was down to 3½ per cent. The Government of India announced their loan on the 25th May, considerably earlier than is usually found possible. The loan, which was opened for subscription on the 7th June, was an unprecendented success. Its effect was to postpone a further easing in the money market until the middle of June. After that, the bank rate went to 4 per cent. and call money fell to 2 per cent., and remained at almost nominal rates until practically the close of the calendar year. In the absence of any outside activity, the cash portion of the new loan found its way into the cash balance of the Bank, and this, combined with a return of 15 crores of rupee coin between April and August, with its consequent inflation of the gross circulation of notes, raised the Imperial Bank's figure for cash to the unprecedented amount of 59 crores. After that the redemption of the outstanding 1926 Bonds on the 15th September and contractions of the currency against the cancellation of sterling and rupee securities led to a gradual fall in cash. The jute crop, though large, was low in price and its financing offered no problems. The cotton crop was late, so that it was not until the end of the calendar year that its effects became noticeable. After that, the bank rate rose rapidly from 5 per cent. on the 3rd January to 6 per cent on the 13th and 7 per cent. on the 9th February. At this rate the Bank borrowed two crores of emergency currency under the emergency currency provision of the Paper Currency Act. The rate for this loan was fixed by Government at 7 per cent. instead of at the minimum rate of 6 per

cent. permissible under the Act. The 7 per cent. rate remained in force and effective to the close of the year under review, with the emergency loan still outstanding.

The Clearing House statistics for the year showed a total of 1,609 crores as compared with 1,688 crores in 1925/6 and 1,806 crores in 1924/5. The fall in the case of the older money centres such as Calcutta, Bombay and Madras was due to the easiness of money and the reduced prices of export staples. There has been a steady increase in the clearings at Cawnpore and Lahore, which shows that the use of cheques in the mofussil is steadily extending.

The Public Debt. — The following table, abstracted from the Currency Report, shows the total debt of the Government of India, including Indian Treasury Bills issued to the Paper Currency Reserve, at the end of each of the last three years. The figures for 1926/7 are approximate as the accounts for that year have not yet been closed :—

	31st March, 1925.	31st March, 1926.	31st March, 1927.
In India.	Rs. (lakhs).	Rs. (lakhs).	Rs. (lakhs).
Funded Debt.			
Rupee Loans	3,70,38	3,68,29	3,74,50
Treasury Bills in the Paper Currency Reserve	49,65	49,65	41,47
Total	4,20,03	4,17,94	4,15,97
Unfunded Debt.			
Post Office Savings Bank	25,64	27,23	29,49
Post Office Cash Certificates ...	13,12	20,97	26,68
Balances of Provident and allied funds	42,41	46,39	50,94
Total	81,17	94,59	1,07,11
Total India ...	5,01,20	5,12,53	5,23,08
In England at 1s. 6d. *to the Rupee.*			
Funded Debt.			
Sterling Loans	3,51,20	3,55,13	3,53,44
Unpaid balance of India's war contribution	25,07	24,43	23,75
Capital value of liabilities undergoing redemption by way of terminable annuities	78,45	76,71	74,91
Total	4,54,72	4,56,27	4,52,10
Unfunded Debt.			
Balances of provident and allied funds	22	28	34
Total England ...	4,54,94	4,56,55	4,52,44
TOTAL DEBT ...	9,56,14	9,96,08	9,75,52

If the table is compared with that shown in my last report for 1924/5, page 32, it will be noticed that several alterations have been made. When the table was first introduced in the Currency Controller's Report for 1923/4, India's sterling debt was quoted in rupees at the rate of fifteen to the pound, though the statutory rate was ten, as it was considered that in view of the market rate of exchange at the time, the former afforded a more practical basis of comparison. For the sake of uniformity the same rate was followed in subsequent reports. Now that the statutory rate is 1*s.* 6*d.* to the rupee, and as this was the market rate throughout the period, the Controller has altered the table to it even though it was not adopted in the accounts during the year under review. The capital value of the railway liabilities undergoing redemption by way of terminable annuities and the portion of the unfunded debt held in England have also been separately shown.

The following table shows the distribution of the debt :—

———	31st March, 1925.	31st March, 1926.	31st March, 1927.
	Rs. (lakhs).	Rs. (lakhs).	Rs. (lakhs).
Productive Debt—			
Railways	5,78,05	6,06,46	6,35,89
Posts and Telegraphs	17,82	12,87	13,25
Irrigation	3,44	3,44	3,43
Vizagapatam Harbour	—	65	95
Total Productive Debt ...	5,99,31	6,23,42	6,53,52
Unproductive Debt of Central Government	2,50,40	2,31,06	2,02,59
Incurred on Account of the Provincial Loans Fund ...	1,06,43	1,14,60	1,19,41
Total	9,56,14	9,69,08	9,75,52

In the railways and irrigation projects, India possesses two very fine investments which should show increasing returns and a growing contribution to the relief of taxation. It will be noted that the total productive debt of the Government of India increased during the past year by 30·1 crores, due almost entirely to capital expenditure on railway development, while the unproductive debt was reduced by 28·47 crores. The internal debt, excluding the Provincial Governments' debts to the Government of India, increased from 397·93 crores on the 31st March, 1926, to 4,03·67 crores on the 31st March, 1927. There was an increase of about 12½ crores in the unfunded debt, due mainly to large sales of Post Office Cash Certificates and an increase in the balances of provident and allied funds, while there was a decrease of about two crores in the funded debt in India, due to the cancellation of Treasury Bills in the Paper Currency Reserve

(8·8 crores), counterbalanced by an increase in the Public Debt (6·21 crores). The external debt decreased from 4,56·55 crores on the 31st March, 1926, to 4,52·44 crores on the 31st March, 1927. There was thus a reduction in the external debt during the year amounting to £3 millions or 4·11 crores.

The Year's Loan. — Only one loan was floated during the year. This took the form of a 4 per cent. tax-bearing rupee loan issued at Rs. 88 per cent and repayable at par on September 15th, 1970, or, at the option of Government, on or after September 15th, 1960, at three months' notice. Subscriptions to the loan were payable in cash, in 6 per cent. Bonds 1926, 6 per cent. Bonds 1927, or 5½ per cent. War Bonds 1928. These Bonds were accepted at Rs. 101, Rs. 102-4, and Rs. 106-8 respectively per Rs. 100 nominal as the equivalent of cash in subscription to the loan. The issue met with wonderful success and the loan was closed to subscriptions in cash and in the form of 1926 Bonds within about 2½ hours of the time of opening. In all, Rs. 29½ crores, nominal value, were received, of which no less than Rs. 16¾ crores were in cash.

Rise in the Price of Indian Government Securities.— The last few years have been noteworthy for a remarkable rise in the price of Indian Government securities both in India and in London. The following figures, quoted by the Hon. Finance Member in his last budget speech, illustrate the position :—

	Market price on				
	1st February, 1923.	1st February, 1924.	1st February, 1925.	1st February, 1926.	1st February, 1927.
	Rs. As.	Rs. As.	Rs. As.	Rs. As.	Rs. As.
5 per cent. Tax-free Loan, 1945-55	88 4	96 10	97 15	100 12	107 5
3½ per cent. Indian Government rupee loan	57 0	66 0	66 9	70 8	77 7

The next table compares the prices of India Stock and other stock in London on various dates and clearly shows that the credit of the Government of India stands considerably higher in the London market in relation to the British Government and other gilt-eged borrowers than it did in 1914, 1923 or even in 1926. While the prices of British Government and other securities actually receded during 1926, those of India stock show an appreciable improvement.

	30th April, 1914.	30th April, 1923.	1st February, 1926.	31st December, 1926.
India 3 per cent. loan ...	75¼	60¼	58	59¾
India 3½ ,, ,, ,, ...	88¼	70¼	68	71¼
Local loans 3 per cent. stock	87	69⅛	64¼	63⅛
London County Council—				
3½ stock	97	79⅞	73	72¼
3 per cent. stock	81	68½	63	62

As Sir Basil Blackett stated in his budget address :—

" The fact which these figures bring out, that India 3½ per cent. rupee stock has been quoted for the last year at a figure appreciably higher than that at which India 3½ per cent. sterling stock has been obtainable in London, has led to very considerable transfers of money from India to London in order to take advantage of the higher yield of the sterling stock. In other words, in addition to the reduction of India's sterling-debt due to direct Government action, individual Indian investors have been reducing India's external liabilities by themselves buying back the titles to some part of her sterling loans and transferring them into Indian hands. This process may legitimately be regarded as the first step towards India's becoming a creditor nation in the ordinary sense of that phrase. She is, of course, already a creditor nation in the sense that she regularly exports more commodities than she imports, but hitherto she has been content to take payment mainly in the precious metals. The process to which I have referred is one which offers great hopes for the future. It has not, however, been without some temporary inconveniences, and a major cause of comparative weakness of exchange during the year 1926-27 has undoubtedly been the movement of capital from India to London due to the higher rates for both long-term and short-term money which have prevailed in London for the greater part of the financial year. A fall in the rates for money in London is, I hope, within sight and will be of material assistance to India in helping to consolidate the improved market prices for Indian Government stocks in India."

The Budget—1927-28.—In previous reports will be found a history of the difficult period in India's finances between 1918/19 and 1922/23, during which deficits amounting to more than 98 crores of rupees had to be provided for. As a result of stringent economies, increased taxation and prudent finance, the tide turned in the year 1923/24 when a small surplus was realised. Since that year, thanks to a succession of good monsoons and the adoption of a cautious yet far-sighted financial policy, small surpluses have been the rule, and in 1926/27 the revised budget showed a balance on the right side of 3·10 crores. The budget for 1927/28 makes provision for an estimated surplus of Rs. 3·64 crores. These sums will be dealt with as follows :—

The last year's surplus of 3·10 crores will be reduced to 2·82 crores by the special remission of 28 lakhs of the Bombay Government's contribution for 1926/27. This sum of 2·82 crores will then be transferred in its entirety to a special reserve so that the revised estimate for the current year will not exhibit either a revenue surplus or a deficit. The 1927/28 surplus of 3·64 crores

will be supplemented by such a sum, at present estimated at 1·81 crores, as may be required to be transferred from the special reserve in order that the outturn of the year 1927/28 may also show neither a deficit nor a surplus. The credit balance in the special reserve at the close of 1927/28, estimated at 1·01 crores, will be kept in hand for use in connection with the inauguration of the new gold bullion standard and Reserve Bank.

From the point of view of the British exporter, perhaps one of the most interesting features of the annual budget is the alterations, if any, which are made in the Customs Tariff. In chapter III will be found a note on the new duties on steel. The only other change which affects the importer is the reduction of the import duty on motor cars from 30 to 20 per cent. *ad valorem* and the import duty on tyres from 30 to 15 per cent. This reduction was long overdue and will, it is hoped, give a helpful stimulus to the development of motor transport in India. As the Finance Member stated—" Neither the Government, nor, I think, the House would feel perturbed if the Provincial Governments seized the opportunity of this reduction of the import duty to impose Provincial taxation on the users of motor cars for the improvement and development of their systems of road communication."

The import duty on unmanufactured tobacco was increased from Rs. 1 to Rs. 1/8/- per lb. an increase which, it is hoped, will give some additional protection to Indian grown tobacco while not materially affecting the cigarette industry. The export duty on tea was abolished, the loss of revenue being made good by the assessment of the tea companies to income tax at 50 per cent. of their total net income subject to the proviso that where there is a market for green tea and the non-agricultural profits can be exactly ascertained, income tax should be assessed on the total of such non-agricultural profits. With a view to the development of the banking habit in India, the stamp duty on cheques and other bills of exchange payable on demand has been abolished from July 1st, 1927.

Railway Budget. — The Hon. Member for Railways in introducing the railway budget for 1927/28 stated in the Legislative Assembly that the revised estimates for the past year year were disappointing :—

" We budgeted on commercial lines for gross receipts amounting to 102.58 crores and gross expenditure, including interest charges, of 92.13 crores. That is, we counted on a gain from commercial lines of 10.45 crores, and deducting an anticipated loss on strategic lines of 174 lakhs, on a net surplus of Rs.871 lakhs. On the basis of these figures, we expected not merely to be able to pay our net contribution of 601 lakhs to general revenues but also to transfer 270 lakhs to our own reserves. But we now know that our budget figures are not likely to be realised. We now estimate that our gross receipts will be 98.31 crores or 4¼ crores less than our budget estimate, and that our total charges will be 90.56 crores or 157 lakhs less than our estimate and that the gain from commercial lines will be 7.75 crores instead of 10.45 crores. The loss on strategic lines is now put at 181 lakhs instead of 174 lakhs, and

the final result is that we now expect a net surplus of 594 lakhs instead of 571 lakhs. The net contribution payable under the Convention to general revenues is, as I have said, 601 lakhs. We expect, therefore, to have to draw on our reserves to the extent of 7 lakhs to enable us to pay our dues to general revenues. As Clause 4 of the Convention shows, that is the primary purpose for which these reserves exist."

For the year 1927/28 a more cautious estimate is being made. Gross receipts from commercial lines are estimated at 100·40 crores and the total expenditure at 91·47 crores. If these expectations are realised, the gain from commercial lines will amount to 8·93 crores and the net gain, after deducting the loss on strategic lines, will be 7·10 crores. Out of this sum, 548 is due to general revenues, that being the net contribution payable on the results of 1925/26, and it is hoped to strengthen the reserves by 162 lakhs.

New Railway Construction.—The activities of the railway authorities in India, in so far as they are concerned with the purchases of plant, machinery and stores, are dealt with in detail in chapter IV, but in this general review mention should be made of the very large programme of new construction on which the Railway Board are at present embarked, and details of which may be obtained from the Department of Overseas Trade. The provision for new construction in the 1927/28 budget was 7·41 crores. This includes 48 lines covering 1,813 miles which are already in progress and 51 new lines extending to 2,827 miles. Thus, the immediate programme covers 4,640 miles. Only 320 miles of new line were opened in 1926/27, but in the current year nearly 900 miles of new line are expected to be opened to traffic. Each railway administration is charged with the duty of exploring every avenue that affords scope for the construction of remunerative lines of a standard suitable to the traffic that may be expected. In order to facilitate the achievement of this object, it is not proposed to adhere to one rigid standard of construction. The Railway Board have laid down varying standards of construction in order that branch lines and extensions may be built to whatever standard seems most suitable to the area to be served.

The Chief Commissioner of Railways states that at the end of March, 1926, there were altogether 38,579 miles of railway in India. Of this total the State owned 27,430 miles, companies and district boards owned 6,187 miles and Indian States 4,962 miles. The capital at charge of the State-owned railways on the same date was 652 crores out of a total capital at charge of 753 crores. As regards management, the four large State managed railway administrations, namely, the North Western Railway, East Indian Railway, Great Indian Peninsula Railway and Eastern Bengal Railway, make up 15,543 miles, while eight other large administrations, owned mainly by the State but managed by companies under contract with the Secretary of State, account for 17,295 miles.

Opportunities for Contractors.—The Hon. Member for Railways in his budget speech in February, 1927, said:—

"We must, I think, congratulate the Railway Board on the success of its efforts to expediate the execution of sanctioned works. One of the methods adopted deserves a passing mention, for it represents a new and important departure. We are now beginning to make use of private contractors for important railway works. A number of important railway bridges are now being built for us by firms of contractors, the latest example being the rebuilding of the bridge over the Nerbudda on the Great Indian Peninsula Railway main line which was washed away last summer. Another important work which has been entrusted to contractors is the elimination of the Bhore Ghat reversing station on the Great Indian Peninsula Railway, and we hope that we may shortly be able to devise a system which will allow us to hand over to contracting firms the entire construction of some new lines."

In view of the large amount of bridge work which is under consideration at the moment including the Howrah Bridge over the Hooghly, the Kala Bagh Bridge over the Indus and the Sagaing Bridge over the Irrawaddy, British bridge builders would do well to watch the situation carefully and instruct their representatives in India to keep in close touch with the authorities concerned. Further particulars may be obtained from the Indian Section of the Department of Overseas Trade.

Security Printing in India.—In the report for 1925 an account was given of the plant and equipment of the new Government of India Security Printing Press at Nasik Road, some 120 miles from Bombay, which is in charge of Lt. Col. G. H. Willis, C.I.E., formerly master of the Bombay Mint. A full report on the construction, equipment and setting to work of the Press was published with the Gazette of India of January 22nd, 1927, which can be seen by interested parties at the Department of Overseas Trade, London.

As soon as the minimum of the requisite machinery had been installed, the Press was set to work on the more urgent items on November 11th, 1925. In spite of the great difficulties experienced in carrying-on during building operations the first despatch of the products of the press, a consignment of registration envelopes, was made on December 10th, 1925, only fifteen months from the time the ground was first opened for the building and nearly seven months before the date at which despatches were expected to be required. By January, 1926, regular despatches were being made at an increasing rate, and in April, 1926, the press was in full swing.

Col. Willis, in a recent note, states that his expenditure out of India on consumable stores for the year 1926/27 was approximately Rs. 6 lakhs, the greater portion being for paper of British manufacture. The contracts which have been placed for the present year are almost wholly on account of British manufactured paper, etc., except for some 500 tons of postcard board of Austrian or Jugo-Slavian origin. During his recent visit to the United Kingdom orders have been placed for the main machinery for

the currency note printing press. With the exception of six automatic feeders from the United States of America and six full automatic guillotine paper cutting machines from Germany, the whole of the plant is of British origin. The contract with the Bank of England for the supply of currency notes expires in 1929 and it is expected that the Press will be fully equipped for taking over the work well before that date.

Indian Joint Stock Companies in 1926-27. *Flotations.*—Although the number of registrations has increased, the aggregate authorised capital shows a considerable reduction on the figure for the previous year. Indian investors have not yet recovered confidence in local industrial enterprises since the devastating slump of 1921/22. The following statement shows the trend of registration in recent years:—

Year.	Companies Registered.		Aggregate authorised Capital.		Average authorised capital per company.
	Number	Index Number (pre-war year=100).	Amount.	Index Number (pre-war year=100).	
			Rs. 000's omitted. Rs.		Rs. 000's omitted. Rs.
1913-14 (pre-war)	356	100	66,91,53	100	18,79
1919-20	948	266	2,81,76,12	421	29,72
1920-21	1,039	292	1,48,03,70	221	14,24
1921-22	717	201	80,83,75	121	11,27
1922-23	496	139	34,41,77	51	6,94
1923-24	430	124	26,49,78	40	6,18
1924-25	416	115	21,23,25	31	5,09
1925-26	473	133	30,00,04	45	6,34
1926-27	537	151	19,13,90	29	3,56

The amount of authorised capital is a very poor guide to the actual state of affairs, as in the great majority of Indian concerns the paid-up capital is only a small fraction of the authorised capital and companies in India go to allotment on very small subscriptions. During the past year increases in the authorised capital were noticeable under the heads of banking, loan, investment and trust, and paper mills (owing to the flotation of the Punjab Pulp and Paper Mills Company Limited with an authorised capital of Rs. 50 lakhs). There were, on the other hand, decreases under planting companies, mining and quarrying and estate, land and building.

Liquidations.—276 companies, with an authorised capital of 23,82 lakhs, having ceased work, went into liquidation or were finally dissolved during the year 1926/27.

Indian Working Class Cost of Living Index. Bombay. —This index figure, which is compiled by the Labour Office of the Bombay Government, has fluctuated during the year between 53 and 57 per cent. above the rates ruling at July, 1914. It stood at 55 per cent. on March 31st, 1927, and at 52 per cent. on May 31st, 1927. The articles included in the index are cereals, pulses, other articles of food, fuel and lighting, clothing and house rent. The articles have been given the relative importance which each bears to the total all-India aggregate expenditure. No allowance is made for any change in the standard of living since July, 1914. The fluctuations over the past five years are shown in the following table :—

(All items : percentage increase over July, 1914).

	1920.	1921.	1922.	1923.	1924.	1925.	1926.	1927.
	Per cent.	Per cent.	Per cent.	Per cent.	Per cent.	Per cent.	Per cent.	Per cent.
January	83	69	73	56	59	57	55	56
February ...	81	62	65	55	56	57	54	55
March	77	60	65	54	54	59	55	55
April	72	60	62	56	50	58	53	53
May	73	67	63	53	50	56	53	52
June	81	73	63	52	53	54	55	54
July	90	77	65	53	57	57	57	—
August	91	80	64	54	61	52	55	—
September ...	92	85	65	54	61	51	55	—
October	93	83	62	52	61	53	55	—
November ...	86	82	60	53	61	53	54	—
December ...	81	79	61	57	60	55	56	—
Yearly average ...	83	73	64	54	57	55	55	—

Patents and Designs. — In his report for the calendar year 1926, the Controller of Patents and Designs states that in all 894 applications for patents were filed in 1926, as compared with 1,000 applications in 1925. Of these 894 applications, 709 came from abroad and 185 originated in India, 87 of them bearing Indian names. The inventions were distributed over a wide range of subjects. Those relating to picture transmission, remote control of electrical systems and articulated locomotives deserve special mention. Indian inventions were mainly concerned with tube wells, ginning machines, reinforced concrete pipes and railway sleepers and chairs.

Applications numbering 5,828 for the registration of designs were filed in 1926, as compared with 3,450 in 1925. The remarkable increase in the number of design applications since 1922 is mainly in classes 13 to 15, i.e. piecegoods, and is attributable to the increasing competition from Japan in the trade in dyed, printed and coloured woven goods.

Printed copies of accepted specifications are distributed to 26 centres throughout India and to the Patent Offices in London and Washington, where these and other publications of the Indian Patent Office may be seen, free of charge. Copies of about thirteen thousand specifications can be obtained at a uniform price Rs. 1/- each on application to the Indian Patent Office, 1, Council House Street, Calcutta. Specifications and other publications of the British Patent Office are also available for inspection in Calcutta, at the Record Office, Bombay, and at the Office of the Director of Industries, Madras.

Civil Aviation. — I am indebted to Lt. Col. F. C. Shelmerdine, O.B.E., Director of Civil Aviation in India, for the following summary of the principal developments of the year :—

" The year 1926/27 has been remarkable for a great increase in the interest taken in the development of civil aviation. Up to 1925, apart from a few spasmodic attempts to start air transport in India, and the construction by Government of one or two aerodromes, very little had been done. In 1925, the decision of the British Government to inaugurate an airship service from England to India and an aeroplane service from Egypt to India was announced and it therefore at once became necessary for India to determine her attitude towards the general question of air navigation. In May, 1926, a memorandum by the Indian Air Board on the Past History and Future Development of Civil Aviation in India was prepared and submitted to the Government of India. Of the recommendations for future development, the following were the most important :—

(*a*) That all landing grounds in India and their necessary equipment should be the property of the Government of India, who should be responsible for the provision of wireless and meteorological facilities;

(*b*) That the Government of India should claim, in future, to be consulted at all stages on the terms of any contract for an external air service touching India, and participate, as a principal, in any such contract;

(*c*) That as far as internal air services are concerned, the Government of India should accept the principle of subsidising such services in the earlier years;

(*d*) The creation of a whole time appointment of Director of Civil Aviation.

In pursuance of items (*a*), (*c*) and (*d*) of these recommendations, the following action has been or is being taken :—

(*a*)

I. IMPERIAL AIRSHIP SCHEME.

(i) A site for an airship base at Karachi has been purchased;

(ii) a site for a mooring mast at Bombay has been acquired;

(iii) a site for a subsidiary airship base at Calcutta has been acquired;

(iv) wireless and meteorological facilities at Karachi (common to both airships and aeroplanes) have been provided.

(In addition, the Government of India have provided a grant-in-aid of Rs.4 lakhs, represented by customs duties on imported material. The airship base has been leased to the British Government free of rent and an airship hangar is now in course of erection at the base.)

II. CAIRO-KARACHI CIVIL AIR SERVICE.

(i) An aerodrome at Karachi has been provided, and cleared;

(ii) An emergency landing ground near Pasni has been provided and marked;

(iii) A hangar has been purchased for Karachi aerodrome, and is in course of erection.

(*c*) It is realised that until such time as the Government of India have provided an efficient ground organisation (aerodromes, hangars, workshops, wireless and meteorological facilities, etc.), it cannot be expected that any firm will be prepared to form a company with the capital necessary to operate internal air services. It has therefore been decided, as a first step, to establish a civil air route across India, and the sum of Rs.1½ lakhs has been voted for this purpose in the current financial year. A further sum of Rs.25,000 has been voted for the survey of the primary air routes in India. These projects are now in hand.

(*d*) A Director of Civil Aviation (Lieut.-Colonel F. C. Shelmerdine, O.B.E.) has been appointed, and assumed his duties on the 5th of April, 1927.

FUTURE DEVELOPMENTS.

The Cairo-Basrah Civil Air Service was started in January, 1927. Owing to certain difficulties with the Persian Government, it has not yet been possible to extend the service to India. If this extension eventually becomes possible, it is considered that further extensions from Karachi to Delhi and Karachi to Bombay might be undertaken. A service between Calcutta and Rangoon, to be operated by 3-engined flying boats, also appears to give good prospects of success. Preliminary investigations into the ground organisation necessary for these routes are being taken in hand.

It seems likely that, in the near future, there will be an increased demand for air survey in India. A considerable amount of air survey work has already been carried out by the Air Survey Company, and a new company is now in course of formation, with a view to undertaking work of a similar nature.

NOTABLE FLIGHTS.

The following table gives details of flights to and across India, which have been undertaken during the period under review."

SCHEDULE.

Nationality.	Route.	Machines.	Engine(s).	Pilots.	Passengers.
Danish ...	Copenhagen to Tokio and return	Military (2) ...	Lorraine Dietrich 450 h.p.	Lieuts. Botred and Herschend	
Spanish ...	Madrid to Manila	Breguet 19 (Military) (3)	Do. do.	Messrs. Gallarza, Loriga and Esteres	
British ...	England to Australia and return	D.H. 50 J. (Seaplane)	Armstrong Siddeley " Jaguar IV " 385 h.p.	Sir Alan Cobham, K.B.E.	Mechanic and photographer
British ...	England to India and return to Egypt	D.H. 66 " Hercules "	Bristol Jupiter 425 h.p. (3)	Messrs. Barnard and Welley Dod.	Sir Samuel and Lady Maude Hoare, Sir Geoffrey Salmond, Sir Sefton Brancker, etc.
British ...	England to India	D.H. " Moth " (2)	A.D.C. Cirrus II. 30-80 h.p.	Messrs. Stack and Leete	
Serbian ...	Serbia to India and return	Potez XXV. (Military) (2)	Lorraine Dietrich 450 h.p.	Capt. Sondermayer and Lt. Beydak	
British ...	England - India (Non-Stop)	Kawker " Horsley" ley " (Military)	Rolls Royce " Condor III " 650 h.p.	Flight Lieuts. Carr and Gillman R.A.F.	(Forced to descend in Sea near Bunder Abbas owing to engine failure. Distance flown 3,588 miles, a world's record at the time).
British ...	England to Australia	D.H. " Moth " ...	A.D.C. Cirrus II. 30-80 h.p.	Mr. Rooke ...	(Delayed at Karachi for repairs to machine).
Dutch	Holland to Bavaria and return	Fokker FVII (Monoplane)	Bristol " Jupiter VI " 425 h.p.	Messrs. Geysendorffer and Scholte	Mr. Van Learblack (American)

Wireless Telegraphy.—I am indebted to the general manager of the Indian Radio Telegraph Company Ltd. for the following note, dated April 20th, 1927, with regard to the position of wireless communication in India and developments during the past year:—

" Wireless Beam Service between Great Britain and India.

The wireless beam stations which are being erected at Kirkee and Dhond by the Indian Radio Telegraph Co. Ltd., for the purpose of telegraphic communication with Great Britain are now approaching completion and should be in commercial operation in the course of a few weeks. (The service was opened by H.E. The Viceroy on July 23rd, 1927.)

The delay in the inauguration of this service is due to a radical alteration of the wave lengths, which was decided on as a result of the experience gained with the Canadian beam and which involved extensive alterations in the original design.

The extension of this system for communication with other countries is contemplated, but nothing will be done in this regard until the original service is first satisfactorily established.

In view of the success attained by the use of short waves for telephonic purposes, the Indian Radio Telegraph Co. Ltd., also contemplate using the wireless beam for a service of this nature in addition to the ordinary telegraphic traffic. The matter is now under discussion with the Indian Government.

Point to Point Wireless Services.

During the past year there has been a steady if somewhat slow advance in the use of wireless for communication between various stations or places in India. The most notable installations of this character have been for the Burma Military Police and the Rangoon Port Commissioners. In the case of the Burma Military Police a series of posts on the Siamese border have been equipped in this manner with very satisfactory results. In spite of the unskilled personnel available no serious difficulty in training operators has been experienced. The value of this form of communication between police outposts leads one to expect considerable developments in this direction.

The installation supplied to the Rangoon Port Commissioners is for the purpose of communicating wtih the pilot vessel and has already proved of great value as a means of avoiding delays and providing pilots as and when they are required.

Public Address Equipments.

The Indian Radio Telegraph Co. Ltd. are now developing the Public Address System of conveying the spoken word to large audiences, and recently gave a very successful demonstration at the Royal Air Force Display at Delhi. On this occasion the orders given to the aeroplanes from the ground, as also the orders passing between the aeroplanes in flight, were conveyed perfectly to a large audience on the race course and added much to the success of the display.

Future Developments.

Apart from intercontinental telegraphic services there appears to be a considerable field for the development of wireless in India. It is admirably suited for police outposts such as those mentioned above, for coastal communication with lighthouses and light ships, for intercommunication over wild tracts of country such as exist in many native states and for operation in conjunction with the commercial flying services now under consideration. It is anticipated there will be considerable developments on these lines in the future."

Broadcasting. — The Indian Broadcasting Company Ltd. was floated in Bombay during the year with a strong directorate

of Europeans, Parsis and Indians for the purpose of developing a modern broadcast service throughout India. Two stations are being built at present, one at Calcutta and one at Bombay, each of 3 k.w. capacity, similar to the 2LO station in London. Both stations are expected to be ready by the end of August, 1927, and will then transmit regular programmes, starting with a minimum of three hours daily.* The general manager and station directors are officials with experience under the British Broadcasting Company and are actively engaged in preparing programmes with the advice of influential advisory committees which have been formed at each centre.

At the end of April, 1927, 95 dealers had become members of the Indian Broadcasting Company Ltd. in order to import apparatus. On their imports the company receives a 10 per cent. tribute. A list of these firms and individuals may be consulted at the Indian Section, Department of Overseas Trade, London. The imports of wireless appartus into India have hitherto been on a very small scale (£37,000 in 1926/27) but it is confidently expected that as soon as the new stations commence to broadcast, there will be a considerable demand for receiving sets and wireless supplies of all kinds.

Trade Prospects in Afghanistan. — In previous reports I have consistently expressed the opinion that in view of the fact that Afghanistan is a relatively poor country with few and primitive means of communication, and in view of the commercial insecurity, progress would be slow and United Kingdom firms would be well-advised to proceed with circumspection and consult the Department of Overseas Trade before committing themselves to any definite forward move.

Events during the past two years have borne out this view and the prospects for an early expansion of foreign trade are scarcely more promising than they were in 1925. I am informed that in spite of the strenuous efforts which are being made by the King for the remodelling of Afghanistan on modern lines, the condition of the trade of the country with the outer world remains substantially unchanged, though there is a noticeable influx of cheap German and Japanese goods through India. In the regions north of the Hindu Kush line, trade naturally flows towards Russian Central Asia, and in the north-east corner there is some commercial intercourse with China, chiefly in smuggled opium. South of the Hindu Kush trade flows, as it has done for centuries, by the main routes to India from Kandahar *via* Chaman and the Bolan Pass; from Ghazni *via* the Gomal, Tochi, and Kurram Valleys; and from Kabul *via* the Khyber Pass. Little can be done to stimulate this natural flow until the main arteries of communication between Afghanistan and India, i.e., from Kandahar to Chaman, and from

*The Bombay Station was opened by H.E. The Viceroy, on July 23rd, 1927.

Kabul to Torkham, are improved by good motor roads and later by well-considered railway extensions. There is little encouragement in present conditions to the foreign trader to take up residence in Afghanistan. The condition of the criminal law, the non-existence of commercial or contract law as understood in modern countries, the uncertainty with regard to local taxation, particularly income tax, which is said to be under the consideration of the Afghan Government, the total absence of banking or exchange facilities, and the almost entire lack of suitable house accommodation and the ordinary amenities of life—all these combine to make a business career in Afghanistan an unattractive gamble to the foreigner.

There are indications, however, that the Afghan Government are genuine in their desire to improve this state of affairs. If they would re-organise their Finance, Commerce, and Public Works Departments and supervise the construction of important roads, there is no doubt that a great impetus would be given to Indo-Afghan commerce. For the present, there would appear to be a very restricted field for British commercial enterprise in Afghanistan.

In the light of the above remarks it is obvious that the greatest caution should be exercised by British manufacturers and merchants before entering into trade relations with Afghan markets. Payment for any goods supplied or services rendered should be obtained if possible in advance. The Afghan consuls in some of the principal Indian ports such as Bombay and Karachi might be a useful medium for business transactions but it should always be remembered that it is extremely difficult to enforce payment of debts through the Afghan courts of law. In those cases where British traders contemplate a visit to Kabul or any other Afghan city, the advice of H.M. Senior Trade Commissioner in India, Post Box 683, Calcutta, should first be sought and close touch should be maintained with the Foreign and Political Department of the Government of India.

The "Better Roads" Movement in India. — Early in 1926, an Indian Industries and Road Development Fund was promoted in Bombay by the leading motor, tyre and petrol interests with the object of carrying on a widespread propaganda throughout India in order to expedite the reduction of the import duty on motor cars and to stimulate interest in road development. Subscriptions to the fund were obtained from local interests and grants were also promised by the Trade Associations of Motor Manufacturers in the United Kingdom and elsewhere. The Indian Roads and Transport Development Association was formed early in 1927 with a strong directorate and with branch committees in Calcutta, Madras, Delhi, Lahore and elsewhere in order to educate public opinion on the subject and to enlist the sympathy of members of the Legislative Assembly and of Provincial Legislative

Councils before approaching the Central Government with definite proposals.

The Government of India reduced the import duty on motor vehicles from 30 to 20 per cent. and that on tyres from 30 to 15 per cent. in March, 1927, so that the Organisation is now concentrating its energies on schemes for the improvement of existing roads and the construction of new roads which, while stimulating motor transport, will act as feeders to the railways and will not run in competition with them.

Proposed Central Road Board.— On February 9th, 1927, the Council of State adopted a resolution which had the support of the Government of India—" that this Council recommends the Governor-General in Council to appoint a Committee, including Members of both Houses of the Central Legislature, to examine the desirability of developing the road system of India, the means by which such development could be most suitably financed, and to consider the formation of a Central Road Board for the purpose of advising in regard to, and co-ordinating the policy in respect of, road development in India."

In his speech on the motion, the hon. the Commerce Member pointed out the desirability of moving slowly in the matter in view of the difficulties to be overcome. In the first place, there is the financial difficulty, as the liquidation of provincial contributions takes precedence of all other claims for the disposal of central funds. Secondly, roads in India are not controlled by the Government of India, but are a provincial and also a transferred subject. Consequently the central government consider that they must carry the local governments with them and take no action which might alarm them or lead them to suppose that the central government propose to encroach on a subject which the constitution deliberately reserves to them. Thirdly, there is the need for a clarity of ideas about the whole conception of a Road Board and a Central Road Fund. Sir Charles Innes wound up his speech by stating—" I think, speaking without prejudice, that the Committee which is proposed in this amendment might perform a very useful function —at any rate it will give this rather difficult and very important subject that thorough exploration which we, the Government, think it requires. If my honourable friends opposite will only understand that we must safeguard our position vis-á-vis local governments and that we must consider carefully whether they will require to be consulted before we appoint this Committee, then, Sir, subject to that reservation, the Government will be happy to accept the amendment."

No official action has yet (July 4th, 1927) been taken but it is likely that the Committee* will be appointed before the end of the August Session of the Legislature, that it will consist of members of both Houses with the addition of one or two officials and possibly of one or two experts from outside, and that it will tour

* Has now been appointed.

India during the cold weather and consult with local governments and other interested bodies, paying special attention to the financial and taxation aspects of the situation. It is anticipated that the Committee will then report to Government in time for its findings to be considered during the session of the Legislature in January/February, 1928, when it is hoped that a Central Road Board may be agreed to and constituted.

The Kathiawar Ports and Customs Duty.—The coastline of Kathiawar is one of the few points on the seaboard where the Indian States touch the coast. Baroda, Nawanagar, and Cutch all have harbours of their own and, by arrangement with the Government of India, have been allowed to develop their ports and collect customs duty according to the tariff schedule in force in British India. The Princes concerned have spent considerable sums on one or two of their ports such as Okha and Bedi Bunder. During the past eighteen months, there has been a very considerable diversion of traffic from Bombay to these ports and this diversion has been mainly of goods subject to high import duties such as silk goods and sugar. Merchants in Delhi and other inland points, which could be reached by the metre guage railway from Kathiawar, cabled their shippers to route their goods *via* Kathiawar, intimating that the duties and charges were lower. The Hansa Line and also at least one British line of steamers put vessels on the berth for Port Okha and the trade rapidly expanded, to the detriment of the importers using Bombay and other ports. At the annual meeting of the Bombay Chamber of Commerce in March, 1927, the President stated :—

" Cases have been given us which go to show that, by importing goods through ports in these Native States, dealers can market their goods at prices lower than they could be landed at in Bombay, and figures of certain commodities prove that more than an ordinary natural expansion of imports has taken place in certain directions. In Porebunder in 1924/25 silk to the value of Rs.2,700 was imported while in 1925/26 this had increased to Rs.65,695. Nawanagar in the year 1922/23 imported 69,865 cwts. of sugar, value Rs.12,63,598, while in 1925/26 465,553 cwts. was recorded, with a value of Rs.49,29,741. Likewise in regard to Junagadh, where in 1924/25 sugar to the extent of Rs.14,56,152 was imported, and this value was increased to Rs.22,45,783 in 1925/26. Now if there is a serious diversion of customs duty taking place in some form or other, the Government of India must be keenly alive to the loss of revenue that is taking place and I understand that the matter has been taken up by them with the States concerned and it is expected that steps will be taken to mitigate the difficulty at an early date."

Not only Bombay importers but even Calcutta merchants complain of the fact that sugar imported through these ports can undersell sugar entering the country *via* Calcutta in markets as far east as Cawnpore.

Action by the Government of India.—Negotiations between the Government of India and the States concerned have been proceeding for some months and a conference was arranged at Mount Abu on June 27th. Three days later an official communiqué

was issued to the effect that the negotiations had failed to secure a solution which would obviate the re-imposition of a land customs line between British India and the States, and it had been decided to re-impose a land customs line forthwith. It is understood that Government offered to take over the customs administration of certain ports and to pay to the States concerned an amount exceeding by 10 per cent. the total of (1) the highest amount collected by each State in any year up to and including 1925-26, and (2) an allowance for the development expenses since 1917. The representatives of the States, however, refused to accept these terms.

In a Commerce Department Notification of 4th July, the Government of India state that in exercise of the powers conferred by Section 5 of the Indian Tariff Act, 1894, they declare the territory of Indian States in Kathiawar to be foreign territory for the purpose of the said section and direct that a duty of customs at the rate prescribed by or under the said Act in respect of any article when imported into a port in British India shall be leviable on any such article when imported by land from the said territory. Such duty however shall not be leviable on—

(*a*) any article which is proved to the satisfaction of the officer of land customs to have been imported by sea into the port of Bhavnagar and to have been cleared there on payment of duty at the same rate as is prescribed by or under the said act for a similar article imported into any port to which the said act applies; or

(*b*) any article which is proved to the satisfaction of such officer to have been produced in the said territory.

The Viramgam Customs cordon has been re-introduced and special arrangements are being made to reduce to a minimum the hindrance to local trade and inconvenience to passengers. Particulars with regard to these arrangements can be seen at the Department of Overseas Trade.

Need for a Pure Food and Drugs Act in India.— Public attention in India is at last being directed to the need for legislation on the lines of the American Food and Drugs Act and the British Therapeutic Act in order to standardise the preparation and sale of drugs. For many years the local representatives of British drug manufacturers have pointed out the need for such an act in order, not only to protect the consumer of drugs in India from the effects of consuming useless and in many cases deleterious products, but also to protect the legitimate manufacturers of preparations which are up to the standard of the British Pharmacopoeia from the unfair competition of their foreign and Indian competitors, who place on the market, at absurdly low prices, drugs the constitution of which is unknown and which bear no standard.

On March 9th, 1927, the Council of State adopted a resolution recommending the Governor-General in Council to urge all Provincial Governments to take such steps as may be possible to control the indiscriminate use of medicinal drugs and to legislate for the standardisation of the preparation and sale of such drugs. In the debate on the resolution, the Director-General of the Indian Medical Service promised that the Central Government would consult Provincial Governments and endeavour to arrive at some method whereby such legislation could be effected. Officers of the School of Tropical Medicine in Calcutta have also very forcibly commented on the need for such legislation.

I am informed by the Department of Education, Health and Lands of the Government of India that the Council of State resolution has been referred to local governments for suggestions as to the action which might be taken.

Royal Commission on Agriculture in India. — In his speech at the opening of the session of the Indian Legislature on January 20th, 1926, the Viceroy stated that at the instance of the Government of India, who had consulted local governments on the subject, His Majesty, on the advice of the Secretary of State, had approved the appointment of a Royal Commission with the following terms of reference :—

" Generally—

to examine and report on the present conditions of agriculture and rural economy in British India and to make recommendations for the improvement of agriculture and the promotion of the welfare and prosperity of the rural population, and in particular to investigate :—

(*a*) the measures now being taken by the promotion of agriculture and veterinary research, experiment, demonstration and education, for the compilation of agricultural statistics, for the introduction of new or better crops and for improvement in agricultural practice, dairying, farming and the breeding of stock ;

(*b*) the existing methods of transport and marketing of agricultural produce and stock ;

(*c*) the method by which agricultural operations are financed and credit afforded to agriculturists ;

(*d*) the main factors affecting rural prosperity and the welfare of the agricultural population, and to make recommendations."

On March 31st, 1926, the personnel of the Commission was announced and the Marquess of Linlithgow was appointed chairman. The Commission visited India during the cold weather of 1926/27 and took evidence in most provinces. They returned to London in April, 1927, and have been engaged in the examination of witnesses there during July. They will return to India in the autumn, complete their tour, and will probably present their report before leaving India in the spring of 1928. Two volumes of evidence have already been published and further volumes will be issued as they are ready. This evidence is of very great interest to British firms interested in the supply of agricultural machinery

and implements, fertilisers, etc., to the Indian market, and can be consulted at the Department of Overseas Trade, London.

The activities of the Royal Commission and the well-known agricultural interests of His Excellency Lord Irwin, the present Viceroy, have brought about a great revival of interest in India's premier industry. British manufacturers are vitally concerned with any steps which may result in the improvement of the standard of living and the increased prosperity of over 70 per cent. of India's population. Moreover, they will do well to study the openings for agricultural implements and stores, which will be brought to light by the investigations of the Commission. India, for a variety of reasons, has hitherto been a disappointing market for agricultural machinery and it is probable that the introduction of improved implements will redound more to the advantage of the local manufacturer than to that of the British maker. The Department of Overseas Trade are in possession of full and detailed information on the subject and will be glad to advise British firms who may be interested in the question.

External Capital Committee.— In my last report, I referred to the appointment of the External Capital Committee which was appointed " to consider the question of the flow of capital into India from external sources." The Committee reported in September, 1925, and summarise their conclusions as follows :—

I. It is more advantageous to India that its requirements for new capital should be supplied from internal rather than from external sources, so far as internal capital is forthcoming. The real solution of the problem of external capital lies in the development of India's own capital resources.

II. Subject to the limitations given below the inflow of external capital is not only unobjectionable in itself but is a valuable factor in assisting the economic development of India.

III. Though in certain circumstances the control of external capital may be necessary in the interests of India, general measures discriminating against it or penalising it either by way of taxation or by way of control would, so far from assisting the development of these resources or fostering the interests of the Indian investor, be definitely injurious to both, as they would impede the growth of new industries and restrict the transferability and consequently the market value of the holdings of the Indian investor.

IV. India possesses a vast store of dormant capital awaiting development, and in order to make this available for investment banking facilities must be increased and extended. The examination of the various technical measures suggested in the replies with this object is outside the scope of the Committee, but we would emphasise the importance of a co-ordinated survey being undertaken at the earliest opportunity of the whole field of banking in India. This should be followed by a detailed examination by an expert committee or committees of the lines along which progress should be effected.

V. As regards the control of external capital, where the external capitalist is merely entitled to a stipulated rate of interest, and only acquires rights of control when there is default, as in the case of State and municipal loans, bonds and debentures of companies, and bank loans, we do not consider any measures of control necessary, but in the case of Government and quasi-Government loans, the rate of interest should not be the sole consideration in placing such loans and, other things being equal, preference should be granted to the Indian investor.

VI. Where investment carries with it the control of an undertaking, we consider it reasonable that, when Government grants particular concessions to the industry of which that undertaking forms part, it should exercise such control over the undertaking as will ensure that the benefits of the concession accrue primarily to the country.

(*a*) Where the concession is general, as in the case of a protective tariff (and this would include practically every industry in India, as a revenue tariff without a corresponding excise has a protective effect) it is impracticable to effect any discrimination. No feasible suggestions for such discrimination have been made to us, nor have any occurred to us during our discussions.

(*b*) Where definite pecuniary assistance, such as a bounty, is granted to any particular undertaking, we consider that discrimination is feasible, and we agree with the Fiscal Commission and the Legislature that no such assistance should be granted to any company, firm or person not already engaged in that industry in India unless :—

(1) reasonable facilities are granted for the training of Indians, and

(2) in the case of a public company unless

(i) it has formed and registered under the Indian Companies Act, 1913;

(ii) it has a share capital the amount of which is expressed in the memorandum of association in rupees;

(iii) such proportion of the directors as Government may prescribe consists of Indians.

(*c*) Where a concession is granted to exploit a wasting asset, such as a mineral concession, no definite rules can be prescribed. It must be a question in each case whether it is better from the point of view of the national interest that a concession should be developed by external capital or left until indigenous capital may be prepared to develop it. Such concessions should only be granted to external capitalists when it is clearly in the national interest that they should be developed.

VII. We do not consider it necessary to examine in detail the measures to be taken to give effect to these recommendations as we do not suppose that any general legislation will be necessary. If Government accept them, the necessary legislative and executive steps can be taken to give effect to them on each occasion when a bounty or similar concession is granted.

British financial concerns will note with interest the distinction made by the Committee between the various types of investment of external capital in India. On January 31st, 1927, in answer to a question in the Legislative Assembly, the Honourable the Finance Member called the attention of members to the copies of correspondence with local governments, which had been placed on the table. This correspondence, which may be seen at the Department of Overseas Trade, shows that the Government of India are anxious to supplement their information on the various subjects connected with the development of banking in India, so as to provide material for a survey of the whole field as suggested by the Committee. The Government of India state that they will welcome any information or suggestions which the local governments are in a position to offer with regard to the preparation of this survey. Their views are further invited on the question of the best method of subsequent procedure, whether by the appointment of a committee, or committees to deal with special problems, or

otherwise, in order to carry out, so far as possible, the recommendations of the External Capital Committee.

Indian Taxation Enquiry Committee.—It will be remembered that this Committee was appointed in May, 1924, with the following terms of reference :—

(1) To examine the manner in which the burden of taxation is distributed at present between the different classes of the population;

(2) to consider whether the whole scheme of taxation—central, provincial and local—is equitable and in accordance with economic principles, and, if not, in what respects it is defective;

(3) to report on the suitability of alternative sources of taxation.

The Committee's monumental report was published in February 1926, and will constitute for many years to come an invaluable work of reference, besides being a guide to the Government of India in the framing of their future taxation policy. As Sir Basil Blackett stated in the Assembly :—

" The greatest service done for us by the Committee and one for which we can all unite in expressing our gratitude irrespective of our views on details, is that they have brought together within the compass of an easily handled volume the facts in regard to the whole of the taxes now levied in India, as well as in regard to land revenue, on which there is and always will be some dispute whether it is properly described as a tax or not. Central taxation, provincial taxation and municipal taxation are all included in this survey, and so far as I am aware, this is the first time in the history of British India that such a complete survey has been made under Government auspices."

The report is far too extensive to deal with in detail here, but in the Appendix (page 217) will be found a summary of the more important conclusions. The complete report may be consulted at the Department of Overseas Trade. From the point of view of the British exporter, the section dealing with customs import duties is perhaps the most important. This is summarised by the Committee as follows :—

(1) Recent revisions of the tariff have had far-reaching effects.

(2) Some of the duties that are not protective in intention are protective in operation.

(3) Other duties are exercising a restrictive effect on trade.

(4) So far as conclusions can be drawn from the figures of incidence, they tend to indicate a certain amount of shifting of the burden from the richer classes to the general population.

(5) A higher rate of duty can safely be imposed on wine, beer and spirits.

(6) A reduction of the duty on the conventional necessities of life, such as sugar, and on the raw materials of industry and means of production is desirable.

(7) The Committee endorse the opinion of Dr. Gregory that the customs tariff should be the object of periodical survey, and recommend that an expert enquiry be undertaken forthwith.

(8) When the Sea Customs Act comes up for revision, section 30 should be amended so as to make the charge on invoice price *plus* cost of freight the normal procedure and the charge on a price which includes the wholesaler's profit the exceptional one.

(9) Conditions in India offer many facilities for smuggling operations. The Committee recommend that a skilled preventive officer should be deputed to compare and co-ordinate the arrangements in the different provinces, not only at the main ports, but also at minor ports, along the coast and on the land frontiers.

(10) An ideal arrangement would be the institution of a customs zollverein, but this is not practical politics at present.

The Government of India are still considering the whole question of placing the tariff on a more scientific basis and will probably appoint a special officer to go into the question in order to enable them to arrive at a decision regarding the manner in which they should approach the subject.

CHAPTER II.

Study of Foreign Competition in Certain Selected Trades with Special Reference to the Measures Required to meet the Situation.

This chapter embodies information received from a number of carefully selected Import Houses and Representatives in India in response to a special enquiry which was made during April and May, 1927, into the reasons for the steady advance of foreign competition. Stress was laid on the following queries, which were submitted to the firms in the form of a brief questionnaire :—

(1) What are the types in which foreign competition is keenest?

(2) Is this competition due to price only, to the greater suitability of foreign goods (cite instances) or to any other factors?

(3) Do our foreign competitors score in any of the following ways :—

(*a*) by giving better credit and general financial facilities (quote instances if possible);

(*b*) by granting more generous terms to agents or representatives;

(*c*) by paying greater attention to details such as packing, invoicing, quoting any special currencies required, meeting the particular requirements as regards make-up, etc., etc.;

(*d*) by better methods of salesmanship such as resident representatives, travellers, cataloguing, etc., etc.

(4) What suggestions are offered to British manufacturers and merchants to enable them to meet this competition?

Adequate treatment of the subject in connection with the great staple import trades of textiles, metals and machinery would be impossible in the limited space available here. I have therefore confined myself to a consideration of certain aspects of the position in these trades and would refer readers to the Department of Overseas Trade for any more detailed information which they may wish to obtain.

Cotton Piecegoods.—The position in the cotton piecegoods trade has been dealt with in detail in Chapter VI and has also been touched upon in the general survey in Chapter I. Although Lancashire interests are usually very well-informed on the Indian situation, there are one or two matters which would appear to deserve far more consideration than has so far been given to them.

In the first place, the old tendency to increase margins and raise quotations as soon as a good business for India is in progress and appears to be expanding has, of recent years, had the effect of completely stifling that business and of playing into the hands of competitors. The important enquiries which were in hand for this market in February last and which would have resulted in definite placements were lost to Lancashire manufacturers by the steep advance in their quotations. This completely checked the buying movement, and it has not since been resumed on any considerable scale. Moreover, confidence in India was seriously disturbed by subsequent Manchester cables asking for a repetition of the offers at the prices which had been refused a few weeks previously.

Thus, not only was this business lost to Lancashire, but dealers in India became nervous of the purchases already made. Similarly, in May last, there was a most promising volume of Indian enquiry at rates which would probably have proved workable when the Yarn Association announced their increased prices and the opportunity was lost. Unfortunately, however, our foreign competitors were not slow to take advantage of the position. Immediately the new quotations based on the Yarn Association's increased rates were known, the Japanese sold in the Calcutta market 2,000 packages of grey dhooties for July-August shipment and this was followed by the sale of several thousands of bales of 40's grey yarn. Importers in India quite appreciate the need for increases in price on account of advances in the raw material or other ascertainable reason. They greatly resent, however, the recent tendency in Lancashire to force up prices whenever enquiry appears to be expanding. In pre-war days when the general level of prices was well within the reach of the Indian consumer and foreign competition was negligible, no serious harm was done to our trade, but in 1927, when British quotations are only just within the reach of buyers, such a policy would appear to show a lack of appreciation of the present position.

Secondly, it is not sufficiently realised that owing to the high level of post-war prices, which, for several years, placed large sections of the trade in dyed, printed and woven coloured goods quite beyond the reach of the consumer, many lines of British fancy goods which formerly had a large sale are now almost forgotten, their use has been discontinued for certain purposes, and the consumer has learnt to economise and do without them. Fashions have changed as a result of this need for economy, and it is almost impossible to re-introduce the goods. Thus, dyed goods were formerly largely used in the form of presents at weddings and other family festivals. This fashion has been largely discarded and the trade has suffered in consequence. Certain other fabrics were purchased to be made-up into hangings and draperies for household decoration but very little cloth is now sold for this purpose. On the other hand, as a result of several years of prosperity, there is a growing proportion of the population which can afford to purchase good quality cloths of tasteful design and colour, and who are inclined to spend a large proportion of their means on clothing made from higher-grade dyed and printed fabrics. I am informed, however, by an authority that—

" the trade is not yet organised to encourage and cater for this demand. Supplies of goods are not available where they are wanted and do not change hands freely enough. The first essential to encourage demand of this nature is a well-stocked retail shop, freely displaying attractive articles of new fashion in order to encourage the consumer to spend a continually increasing amount on better quality clothing. The stocks in the average Indian retail shops are very small and unattractive. One reason for this is the fear of communal rioting and looting which makes the cautious shopkeeper only expose a minimum of goods for sale. Also, the constant decline in prices during the past

two years has not encouraged the dealer to keep large stocks. The hand to mouth policy has paid and is becoming a habit in the trade. Conditions such as these have been very unfavourable for the introduction of new styles and fashions. Dealers have preferred to confine their commitments to a few standard articles, of which they are sure of a steady demand, rather than to try and attract new trade by offering a new fashion."

"What the trade in fancy cloths needs more than anything else at present in order to get back more closely to pre-war yardage is stability in price. Stability should help to-day even more than a further reduction. With greater confidence, dealers would launch out more, both in the direction of keeping larger and more varied stocks, and in the direction of bringing out new and attractive styles, which would encourage the development of fashions and the use of fancy cloths as a luxury trade as opposed to their use as necessary clothing."

On the subject of Italian competition in mixtures of cotton and artificial silk, an experienced observer in the trade raises a point which is of interest. He writes :—

"The methods of marketing employed by Italian firms have much to do with their progress. Goods are sent out in large quantities, in standard designs and colourings, against market recommendations. The overseas office of the Italian manufacturer, or group of manufacturers, may cable a recommendation of 1,000 cases in one line and the goods are sent out to be sold at best market price. A quantity of 1,000 cases of British goods would probably be divided among 20 or more Manchester shippers and the effect of this on overhead charges is obvious. Twenty or more exchanges of cables, twenty or more buying, packing and shipping departments, and all these charges have to be borne by the trade. It would probably pay the Italians to work these large quantity orders on as fine margins as those on which Manchester firms work bulk lines of staples."

It is satisfactory to learn that, although Germany and Czechoslovakia have made considerable progress, buyers are now beginning to discriminate between the superior British productions and cheap imitations of them, the main recommendations of which are a bright and attractive appearance when the goods are first opened out. There have been many complaints with regard to the inferior durability of the Continental goods. I am informed that sales of British qualities have recommenced at prices about 20 per cent. higher than Continental goods. It is unfortunate, however, that owing to this price disparity dealers make much less profit on British goods than they do on the cheaper Continental styles. Moreover, the trade in the higher priced qualities is very limited. At one period last year, however, it appeared as if quality would not receive any consideration in the market.

Although the imports of Japanese dyed goods of competing styles are as yet not very heavy, the great improvement in the quality, finish and general outturn is most noticeable. This is particularly the case in the Rangoon market, on which Japan has largely concentrated her attention. This competition is likely to extend to the larger Indian markets and deserves careful attention.

Metals.—*Aluminium Circles and Sheets.*—Competition is met with from the United States, Germany and Switzerland and is entirely based on price. The leading British and American

producers maintain their own offices and depots in India. They are also interested in the factories manufacturing utensils. Continental imports are almost entirely against indents from Indian importers, largely in Bombay. Our competitors do not enjoy any advantages as regards financial terms, selling methods, allowances to agents, packing, etc. The leading British firm has as efficient an organisation as any competitor and is in a slightly more favourable position, as the British metal is preferred on account of quality and because it is always uniform in gauge, finish and general appearance. I am informed that at equal prices British circles and sheets are bought in preference to any other. The whole difficulty is one of price cutting. The British firm fixes a price and their competitors then quote a fraction less. In this way the price has lately been brought steadily down from 1*s*. 3*d*. per lb. to 1*s*. 0½*d*. per lb. The production of aluminium in America and Europe has increased very greatly of late years and manufacturers are forced to find an outlet in overseas markets with the result that, failing an international agreement, the cutting of rates is likely to continue, particularly on the part of American producers, who are making a dead set at the Indian market. This would seem to be a trade where agreement between the principal manufacturers would be in the interests of all concerned.

Copper Sheets.—Competition is keenest from Germany and Japan. Here again British quality is said to be preferred and commands a slightly better price, but British makers are consistently being undersold by their competitors. Price is the determining factor.

Yellow Metal Sheets and Circles.—The United Kingdom is steadily losing ground in this valuable trade owing to the lower prices quoted by Germany. A leading importer states that the British product will usually command a premium over the German article due to its being more pliant and malleable. There is, however, a limit to the premium which importers can afford to pay for quality and, except for the highest class of work, they find it advantageous to purchase the slightly inferior but very much cheaper foreign product. The leading German brands are usually in fair demand at £2 to £3 per ton below British rates.

The question of gauge is most important. The sheets and circles are usually worked up by hand into utensils and therefore the thinner gauges are most in demand. I am informed that foreign manufacturers are more lenient in their premium charges for a preponderance of lighter gauges and are frequently willing to meet the demand without the usual increased charges for any extra proportion of light gauge goods. Japanese shippers are reported to be willing to give any size of circle required by the market whereas it is stated that British makers will rarely quote for circles less than 9 inches or 10 inches in diameter.

One of the leading importers writes as follows:—

" Our conclusion is that price is the main factor all the time. British goods already lead in quality and will always be first in demand when their price is reasonably near that of foreign productions. British manufacturers have thoroughly examined the question of costs but it might be worth their while to reconsider the extras demanded for special specifications. They have this in their favour that British yellow metal of a given gauge is more pliant than its foreign equivalent and therefore the market can take British goods in heavier gauges than foreign, thus effecting a saving in rolling charges to the British manufacturer."

Cotton Textile Machinery and Engineering Stores.—So far as machinery for spinning and weaving by power is concerned, British makers are " *hors concours.*" The same remark applies to bleaching, dyeing and finishing plants. There are, however, a few specialities in which foreign and Indian competition is being met and I am indebted to a prominent firm in the trade for most of the following details.

Cotton Waste Spinning Machinery.—The only foreign competition met with is from a Polish maker who manufactures plant for the production of yarn from the very low classes of Indian cotton waste. The yarn is subsequently woven into coarse cotton blankets. British makers are taking the matter up and hope shortly to compete on equal terms. British plants remain in favour for the production of the better qualities of cotton waste yarn.

Warping or Beaming Machines.—A German high-speed machine is being sold in competition with the British slow-speed machine. The former beams from cheeses, the latter from flanged bobbins. It is still early to assess the relative advantages of the two types. It is three years since the attention of British makers was called to this German product, but so far no reply has been received.

Hand Looms.—A copy of a well-known British loom has recently been placed on the market by a Czechoslovak machinist and is being sold at a very low price.

Dobbies.—There is a large trade for dobbies in India, chiefly for power looms in large factories. In Surat there are about 2,000 to 3,000 hand looms and also a large number of small power loom factories and this town provides a most important market for dobbies. An Italian dobby is being sold at £9 c.i.f. against British dobbies at £12 5*s*. 0*d*. c.i.f. Bombay. The Italian machine is not so well finished, but the low price stimulates its sale.

Millgearing and Millwrights' Work.—A large proportion of this work is now being secured by a Dutch firm which sells at very low rates and maintains an expert in India.

Sundry Parts.—My informants state that—

" there is a tendency on the part of British manufacturers not to concern themselves very seriously with the sale of detail parts of machines but to regard it as almost obligatory that the user of a machine must buy his replacement parts from the maker of the machine. This may have been true years ago

but is not true to-day. Users show an increasing tendency to buy cheaper parts made in India or to make parts themselves in the mill's foundry and mechanics' shop, although most of them would prefer to buy the machine maker's parts were the prices not prohibitive. This state of affairs not only spells the loss of orders for sundry parts but also an encouragement towards the making in India of the machines themselves."

The firm's comments in reply to the questionnaire quoted at the beginning of the Chapter are so clear and explicit that it will be of interest to give them in extenso :—

" 3. (*a*) We do not find we suffer from any disability in regard to credit and general finance facilities. With the power to give service, with quality machines and competitive prices, special credit facilities rarely become necessary.

(*b*) Nor do we think we are at a disadvantage with foreign agents or representatives in the matter of remuneration. It is all a question of what remuneration an industry will stand and the rate of remuneration varies according to whether the state of trade is good or bad.

(*c*) Again, speaking generally, we have not found that we suffer in regard to packing, invoicing, quoting any special currencies required, meeting requirements as to make-up, etc., etc.

(*d*) Again, speaking generally, we find that with approximately equal prices and qualities the average Indian buyer prefers to entrust his order to a British rather than to a foreign salesman or firm. We do not therefore appear to be inferior in salesmanship. The same applies to cataloguing, although in this regard we think the tendency is for the foreigner to show greater resilience and the Briton to retard effort.

4. Apart from the aspect of foreign competition there is room for great improvement in British selling methods. It is hard to generalise because the variation in degree of efficiency as between one British firm and another is sometimes extraordinary and the same applies as between one trade and another. In some trades, as in many firms, the standard of efficiency in regard to catalogues, detail part lists, literature for propaganda work, quality of illustrations, etc., must be rated very low. We know of firms who manufacture first-class machines but possess no catalogue to illustrate them, the place of an informative catalogue being taken by uninformative leaflets. In extreme cases we have no literature to offer. Many firms do not possess detail parts lists, and this is not only a source of irritation to the user of a machine but often results in parts being made locally, which is bad alike for machinist and machine. There are still firms who resent or disbelieve complaints instead of going to the root of the trouble, who would do well to become more self-critical. Many British firms are lamentably short of travelling representatives and are only able to give their agents abroad occasional visits, or are unable or unwilling to send anyone at all. Such visits help to stimulate the efforts of agents abroad and more can be done in this direction, but in sending travelling representatives abroad for the purpose indicated British firms should only send men who will carry weight with buyers and agents alike. Representations from agents abroad of difficulties experienced in working machines, of suggested improvements and of new competition do not always receive deep or prompt consideration at the hands of machine makers."

Dyestuffs.—The following comprehensive note has been compiled by my colleague, Major R. W. Clarke, H.M. Trade Commissioner at Bombay, as a result of investigations made in Bombay, which is the headquarters of the dyestuffs trade in India :—

Dyestuffs in India are chiefly sold by Germany, America, Switzerland and Great Britain in order of importance. Of these countries Germany supplies

80 per cent. and all other countries 20 per cent. With reference to these figures it may be noted that published statistics are somewhat misleading, as a great many goods which are classified as Belgian and Dutch are of German origin and are shipped from Dutch and Belgian ports.

1. It may be stated that the dominating position of Germany with regard to dyestuffs in the Indian market is chiefly due to the fact that Germany can supply a much wider range than any other country. Her superiority in this respect is chiefly marked in the case of the more complicated dyes of which vat dyes and naphtol may be quoted as examples. Switzerland, though she has not such a wide range, is able to produce higher class and more complicated dyes such as those quoted above. As the volume of her trade is not very large, she comes third on the list of countries supplying dyes to India, but as she supplies the more expensive dyes her trade is extremely profitable.

America again has a limited range, and she specialises chiefly in the commoner kinds of dyes such as Sulphur Black and Congou red. It is interesting to note that not only do the Germans find that American competition in India is very keen, but Americans have lately instituted a very vigorous campaign in Germany itself in these lower classes of dyes. This competition is rendered possible by the fact that Germany, India and China are the only considerable dye-importing countries in the world which maintain an open door for imports of dyestuffs. This does not mean that dyestuffs enter these countries duty free, but no preference is given in these countries to dyes produced in any particular country. In other countries preferential duties and the system of import licenses make competition more difficult. In producing countries where the range of dyes is limited and where certain foreign dyes have to be imported under license, the countries which produce these particular dyes are able to take advantage of this by raising their prices for dyes imported under license.

Although the range of dyes produced in the United Kingdom is limited, Great Britain has a fair share in the trade of alizarine dyes imported into India, which they share chiefly with America. Unfortunately, however, these dyes command such a low price that there is very little profit for the manufacturer.

America is able to quote very low prices in India, as her trade in India in dyes may be correctly described as dumping. America is able to export dyes into India on account of the very high import duties on dyes in America, which keep up prices in the home market.

3. (*a*) This question can be answered emphatically in the negative. The Havero Trading Co., which, as far as India is concerned, is an amalgamation for sales purposes of the principal dye manufacturers in Germany, give only stringent credit terms. They have branches in Bombay, Calcutta, Karachi, Madras and Rangoon. At these branches very considerable stocks are kept. In addition to these branches or depots where large stocks are kept, they have 150 smaller depots scattered all over India in charge of people who might be termed sub-agents. Smaller stocks covering a very wide range are maintained at these depots on a consignment basis, the value of the consignments, however, being fully secured. Orders to various customs are supplied from these depots and 30 days' credit is given. I am assured that these credit terms are never exceeded, and I am informed on good authority that the present outstandings of the Havero Company during the year do not amount to more than one month's sales. Large orders such as orders to mills are supplied from the branches in the cities mentioned above where the same credit terms are given. These credit terms apply to the higher class of dyes; in the case of alizarine, the average sales of which are about £15,000 per month, only 8 days' credit is given. The reason for this is that these lower class dyes are not stocked to any considerable extent, but are imported on customers' account and consigned to them without any delay on arrival in India.

(*b*) The Havero Company, with the exception of these up-country depots, do not employ any agents or representatives.

(*c*) Very great attention is paid to packing and invoicing by the Germans. They are fortunate in this respect that having had a monopoly of the dye trade in India before the war their labels, which are of the most attractive description, are very well known throughout the bazaar and to dye consumers generally.

(*d*) The Germans maintain a large staff of so-called inspectors who visit the up-country depots at frequent intervals. The duty of these inspectors is to ascertain whether any particular depot is getting a fair share of the trade in that district. They also investigate complaints, if any, and supply information as to stocks to the particular branch from which stocks are drawn. It may be noted that up till twelve months ago the stocks kept in India both at the branches and the depots were excessive; these have now been reduced to normal condition. The question of substitution as in other trades in India is fairly serious, and a special staff is employed whose duty it is to watch in the bazaars for cases of substitution. It may also be noted under this heading that the Germans are not content only to sell dyes, they are also prepared to assist and advise customers in the proper use of these dyes. A large laboratory and a demonstration dye works on a small scale is maintained in Bombay where consumers can be shown the proper method of employing German dyes. A staff of seven highly paid dye specialists is maintained in order to advise and help millowners and other customers who find themselves in any difficulty.

Chemicals.—During the year under review the United Kingdom supplied 58 per cent. of the total imports of chemicals, her principal competitor being Germany with 21½ per cent. In the last pre-war year the corresponding percentages were 75 and 12. Largely on account of the efficient and widespread organisation of Messrs. Brunner, Mond & Co. (India) Ltd., whose sales organisation is second to none, the market in heavy chemicals such as soda ash, bicarbonate of soda, caustic soda and bleaching powder is largely regulated by the British supplies and price cutting by foreign firms is promptly met and overcome. The competition from the Havero Trading Company which is the local organisation of the German " I.G." and has already been referred to in the dyestuffs section, is likely to become more acute in the future. The great German Combine, starting from the distillation of coal and lignite, carry on the intensive manufacture not only of dyes but of bye-products of all kinds. These bye-products can be sold at very low rates and it is possible that the sales organisation already maintained for the distribution in India of dyestuffs will in future be utilised to market the other products of the German Group.

German competition at present is keenest in the bazaar trade for miscellaneous chemicals. Bombay is the principal market and the business is largely in the hands of small Indian firms, who, having very low overhead charges, are content to work on small margins of profit. Price is the controlling factor. Generally speaking, our foreign competitors do not give better financial or agency terms, nor are British firms at a disadvantage in regard to such details as packing, invoicing, etc. Where the trade is lost, it is lost because British products are dearer than Continental.

Bazaar Hardware and Cutlery.—This heading has been selected because British firms enjoy the greater share of the imports of the better quality hardware for use by Government Departments, railways, public bodies, industries and European enterprises in general. In the enormous trade in the bazaars, where low price is almost the sole consideration and where quality counts for little, it is no exaggeration to state that the British share has fallen to almost negligible proportions and in many sections British goods are unable to compete at all with the productions of Germany and other Continental countries. The representative of one of the largest Birmingham firms, who formerly controlled the trade in certain lines, informs me that at present it is almost impossible to compete although his goods still remain the standard type in the market. In practice, he quotes his lowest discounts off the list prices for the various standards and is followed by German, Belgian, Czechoslovak and other representatives, who first ascertain the British price and then quote say 10 per cent. lower and secure the business. In most cases they have not submitted samples of the goods and, of course, their quality is usually most inferior, but the Indian dealer is able to pocket so much of the difference in price that he is willing to take the risk of claims. The British maker not only loses the immediate business, but the quality is steadily lowered until it reaches a point where he is unable to compete at all.

The replies received to the questionnaire are most conflicting, but the following gives the consensus of opinion on each of the several queries, which are given seriatim :—

(1) Foreign competition is stated to be very keen in the following items :—Double-ended spanners, motor wrenches, combination pliers, Clyburn spanners, pipe wrenches, pipe cutters, stocks and dies, ratchet braces, hand vices, blacksmiths' jaw vices, pipe vices, bit braces, hand drills, screw augers, planes and plane irons, hack saws, files and rasps, hammers, anvils, punches, screw drivers, folding rules, meat choppers, mill knives, figure and letter punches, compasses and callipers, pipes and pipe fittings (bends, elbows, tees, sockets and unions), hand pumps, tube well fitter points, hose, graphite packing, horse shoe nails, brass garden syringes, wire hasps and staples, butt and other hinges, brass cased tubes, bright m.s. shafting, bolts and nuts, wood screws, wheel valves, etc., etc.

One authority states that *German* manufacturers predominate in :—

The cheaper grades of carpenters' and engineers' tools : on account of price.
Builders' and cabinet makers' brassfoundry : on account of price.
Padlocks : on account of price.
Wrought iron and galvanised pipes and fittings : on account of price.
Bolts, nuts and rivets : on account of price.
Roofing bolts, nuts and fittings : on account of price.

while *American* makers excel in :—

Lanterns: on account of design and price.
Files: on account of quality and price.
Pipe-screwing tackle: on account of price.
Hammers and carpenters' axes and saws: on account of finish and quality.
Locks: on account of quality, self-locking rustless keys designed not to break and of convenient shape.
Engineers' precision tools: on account of quality and price.
Household and tube well pumps: on account of price.
Pulley blocks and hoists: on account of design and price.

(2) German competition is reported to be due to price only, while American competition is chiefly due to better design and greater suitability. Thus, American lanterns, axes, precision tools and locks are superior in design and finish. The American malleable cast steel used in their machinery is reported to be superior to equivalent parts used in British machinery because it is more lasting and less liable to break. Agricultural implements are alleged to be of lighter make and of greater variety, while pumps and files are usually cheaper. The same informant writes :—

" I do not think British firms realise the magnitude of the trade in Calcutta in hand pumps for tube wells and household use. Thousands of American hand pumps have been imported during the past three or four years and it is a trade which will increase rapidly as villages and small municipalities are realising the advantages of pure water."

French competition in hardware and tools is stated to be growing rapidly. There have been recent imports of pickaxes, chisels, files, shovels, etc., which were never seen in the market up to two years ago.

(3) *a* The consensus of opinion among importers in the bazaars is that Continental firms give greater credit facilities in the form of D/A terms and that they are more lenient as regards renewals of drafts, remission of overdue interest, etc. This is not confirmed by the British banks, but it must be remembered that Continental goods are largely financed through Dutch and other Continental banks. It is exceedingly difficult to give exact information on the point. My own view is that the advantages derived by our competitors under this head are minor ones when compared with that of lower prices. The premium which British quality still commands when prices are almost equal would more than offset the extra credit facilities offered by foreign shippers.

(3) *b* British goods are usually purchased through London shipping houses on the basis of first cost, i.e. makers' prices *plus* actual freight, insurance and other charges together with a buying commission of 2½ per cent. which is divided equally between the British exporter and his agent in India. I am informed that, in the case of German goods, the agent in India receives a commission from the Hamburg or other shipper of from 3 to 5 per cent., varying with the nature of the goods. German and other Continental goods are usually offered on c.i.f.c.i. terms, which includes the remuneration both of the shipper in Europe and of his agent in

India. On the whole, I think the German exporter does give a greater incentive to his agent in India by allowing a more generous commission.

(3) *c* There is little to be noted under this head. In the details of packing, invoicing, quotations, etc., British firms have nothing to learn from their competitors. The Germans are very active in buying samples of goods in steady demand and then they counter-sample with a similar article at a lower price. One large firm of importers writes :—

" The Germans have always been prepared to manufacture any particular article which may be specially suitable to the country even though it may differ only slightly, whether in size, shape or weight, from a similar standard article of manufacture. British makers are rather more conservative in this respect and usually require guarantees or large orders before they will make any departure from their standard patterns."

(3) *d* German and Continental export firms are showing a tendency to open offices in Calcutta and Bombay and the number of resident agents and travellers has increased enormously in recent years. It is sometimes stated that the German traveller is better adapted to sell to the bazaar, is harder working and more pains-taking than his British confrère, but it is impossible to generalise on such a question as I know scores of British travellers, who have been visiting India for years, and who have every qualification for the work. I have no hesitation in recommending that more British firms should send out experienced travellers of their own or should utilise the services of men, who hold a group of agencies for non-conflicting lines.

American firms are paying very careful attention to this question of representation and actively support their agents by sending out travellers, supplying advertising matter such as blocks, etc., giving generous advertising allowances and supplying masses of well-produced and suitable catalogues, leaflets and other forms of propaganda literature.

(4) There is no doubt that if British prices were competitive, the other minor disabilities under which we suffer would rapidly disappear. Of the dozens of replies received from importing firms to this enquiry, all, without exception, emphasise the need for lower prices. In most cases this is probably a counsel of perfection, but—at all events—those British manufacturers, who are definitely losing their bazaar trade to foreign competitors, would do well to send out a special representative to study the situation on the spot and report on the measures which are necessary in order to recover the lost ground.

Glassware.—H.M. Trade Commissioner at Bombay reports as follows on conditions in Bombay, which is the most important Indian market for glassware :—

(1) The chief foreign competitors in this market are Austria, Germany, Czechoslovakia and Japan. Since 1914 the quality of these foreign imports has much improved, but increased sales are not due to improved quality but to reduced price. During the war Japan got a strong footing in this market.

(2) This competition is due to price and also to the fact that Indian dealers are apparently able to make a larger profit on goods imported from these countries than on goods imported from the United Kingdom.

(3) *a.* The competitors mentioned above are willing to give to dealers credit terms usually from 30 to 60 days. In the case of large dealers, who are well known, 60 days' credit is usually given.

b. No cases can be found where more generous terms are given to agents. Prices are cut so low that it would be impossible for them to do so.

c. The packing of these goods is in no way remarkable and the salesmanship is not superior. They have a cheaper article to sell and with prices ranging from 20 to 30 per cent. below glassware of British manufacture they have no difficulty in selling it.

The low rate of wages and the depreciated exchange in Czechoslovakia give them a great advantage in fixing prices.

Drugs and Medicines.—(1) The competition is mainly from Germany, Japan and the United States. German competition covers practically the whole range of drugs, fine chemicals, and galenicals. Japanese competition is met with in a few special lines such as iodine and iodide, menthol and camphor. American competition is almost entirely in proprietary articles and patent medicines. There is also a certain amount of French and Italian competition in febrifuges and blood mixtures.

(2) So far as German competition is concerned, price is the determining factor. The rivalry between the leading British and German makers of repute is perfectly straightforward and prices are largely governed by international conventions. Owing to the absence of a pure food and drugs act in India, Continental goods, which do not conform to the standard of the British Pharmacopœia, are sold at ridiculously low rates and this is competition which it is practically impossible to meet as there is no standard of quality. One of the largest importers writes as follows :—

" In our opinion the competition in chemicals is principally due to price, while price is to a great extent governed by quality. The prevailing demand in this country is for cheapness, but as a general rule it may be said that British drugs and chemicals are of good quality, and the imports of inferior drugs and chemicals from England are but a fraction of the cheap rubbish dumped on this market by Continental export houses.

Here again, we must not be understood to imply that all Continental chemicals are of inferior quality. We ourselves purchase chemicals largely from Germany but confine our purchases to manufacturers of repute, and our only reason for these purchases is that German prices are lower than British goods of the same quality in very many instances. In Germany the fine chemical industry is very highly organised and the various manufacturers work together to a greater extent than in Great Britain, and by mass production supply very many fine chemicals of satisfactory quality at lower prices than British manufacturers can quote."

" The Indian demand is for cheapness and we consider that a large proportion of Continental imports is due to manufacturers meeting this demand by the sacrifice of quality. There is a very large percentage of inferior or adulterated drugs on the market and these are largely of Continental origin. Recently an eminent medical man ascribed the low status of medicine in India to defective education in medicine generally on the part of the Indian medical

man. This is undoubtedly true and the import of inferior chemicals can also be ascribed in a large measure to the defective education or entire lack of chemical education on the part of many dealers and importers of drugs and medicines."

The crux of the matter is the lack of a Pure Food and Drugs Act and in Chapter I will be found a statement of the steps so far taken towards the introduction of legislation of the kind required.

(3) *a* German manufactures are reported to give 90 days D/A terms to bazaar dealers, in some cases free of interest. An experienced British representative states that :—

" Where British firms are limited to selling goods on either a 30 days' sight or cash in London basis for convention lines such as bismuths and iodides, German firms offer 60 days' sight free of interest. I entirely agree with 30 days for the drug trade in India, but unfortunately one has to meet competition and it is now necessary to give extended credits."

(3) *b*, *c*, and *d* On the whole there does not appear to be any considerable variation between British practice and that of competitors. Most of the leading British drug houses are represented by competent and trained resident representatives, who give excellent service. Several informants state that German packing and make-up are superior to British.

(4) The introduction of State control of drugs and medicines would do more than anything else to eliminate unfair competition and would tend to restrict the trade to the products of reputable makers. Those British manufacturers who are not represented by an experienced resident agent should realise that they will always be handicapped in this market, which, year by year, demands greater service. They should send out a trained chemist with experience in salesmanship to tour the country and interview the medical profession and hospital authorities as well as the firms in the trade. He should also keep in touch with the Medical Stores Depots in order to secure a share of their orders which are placed in India.

Advertising with knowledge and discrimination is also most important. The extraordinary success of American patent medicines is largely due to efficient advertising which is carried out, not only in the Press, but by systematic campaigns among the doctors, hospital authorities, Government Departments and the Trade, by means of leaflets, samples and constant personal visits.

Perfumes and Toilet Requisites—(1) Competition in perfumery and face powders is almost entirely French while the United States supplies large quantities of tooth paste and talcum powders. German and Japanese toilet requisites are also sold in the bazaars, but these are usually of a much lower quality.

(2) The success of the French products is not attributable to lower price, in fact the majority of the articles are more expensive than the British, but is due to superiority both in quality and make-up and also to long established reputation and the dictates of fashion. The French have always enjoyed a great reputation

for luxury articles and it is only during recent years that British makers have begun to compete seriously with goods suitably prepared and made-up. I am informed that British quality in many cases now approaches and in some instances equals the best French makes. Many British manufacturers have still much to learn in studying the precise requirements of the market as regards an attractive get-up, the right shape, size and style of containers and good packing. Most of my informants emphasise the excellence both of the French and American packing. A large Calcutta House, however, state that in their opinion British toilet requisites are obtaining a firmer hold of the market.

(3) *a, b, c* and *d* The general opinion seems to be that our competitors do not as a rule give better financial or credit facilities and that the terms to agents are approximately the same. One representative, however, states that " whereas the British firm usually offers a maximum of 5 per cent. to his representative, the foreigner usually offers at least 10 per cent. and I know of one New York firm which allows 15 per cent."

Another reliable firm of agents with experience both of British American principals write that :—

" British manufacturers are undoubtedly slack in the matter of return commissions to their representatives and close co-operation in the selling field as regards local newspaper and other advertising. For instance, some American manufacturers pay as high as 15 per cent. return commission and the majority of the French firms give 10 per cent. Practically every American firm selling toilet requisites in this market is steadily and consistently advertising its products."

There is no doubt whatever that, in this as in so many other trades, the British maker loses through his disinclination to spend money on advertising. It is only with the greatest difficulty that travellers and agents are able to obtain even the most inadequate sums for this purpose, whereas their American competitors have secured most of their large trade in quality and semi-luxury articles by clever and consistent advertising backed up by an active selling organisation. The subject is so important that I shall revert to it later in this Chapter.

Paper.—Owing to the fact that the Continental makers possess the advantages of having woodpulp, water and hydro-electric power all on the site of manufacture, British paper makers have never participated to any extent in such items as unglazed newspapers, flint papers, tissues, marble papers, kraft or wrapping papers and glazed account book papers, which are mainly drawn from Norway, Sweden, Germany, Finland and Austria. The export trade to India in wrapping papers, however, is largely in the hands of British firms, who factor the Continental products so as to be able to offer the whole range of papers, including those of their own make. One well-informed importer in Calcutta writes that—

" the British paper trade is second to none in the efficiency of its organisation for foreign trade and the majority of the packing papers are imported through British firms, who would naturally place business in the United Kingdom if it were possible to obtain supplies there."

The following comments have been made by one of the largest firms of paper importers in Bombay :—

" *Printing Papers.* It is in this section of our trade that we are feeling the greatest competition from the foreigner. Prior to 1920 England held the bulk of the trade in what is known as the " Free Printing Papers." While supplies are coming in from Germany and Scandinavia, our chief competitor is Holland, and to-day hundreds of tons are coming into India from that country.

There are various reasons for this competition :

(1) The art of printing in India is still very low, and so long as the paper " does the job " that is about all that matters. The Dutch quality is quite a good sheet and " serves the purpose." The British paper would give a better printing result, but this weighs little with the Indian printer.

(2) The Dutch quality being inferior, the price is lower, and as price is the first and most important consideration to the Indian, orders are placed on the cheaper grade.

(3) The protective tariff on paper in India has adversely affected the imports of British grades, as this has forced up prices to a figure where every pie counts.

(4) To a point we could get a little extra price for a British paper when the unit cost was low, but now that that unit cost has increased, the consumer cannot afford that " little extra " for a British article.

Writing Papers. The same remarks apply to this as to the Printing papers. In the past the Scotch mills used to export to India a considerable tonnage of Writing papers made from Esparto grass, but owing to price, consumers have been forced to use a cheaper paper, viz., what we know as a Free Cream Laid. As far as the general public is concerned the Free Cream Laid writing serves exactly the same purpose as the Esparto paper.

With the general demand being for Free Cream Laids the same remarks apply as to the Free Printings, as the basis of both papers is the same."

Envelopes.—The keenest competition is from Scandinavia and is largely confined to one grade of envelope—the cheap cream and tinted Manilla, the basis of which is a kind of wrapping paper.

My informants state that, on the whole, they do not think our competitors gain by reason of any of the other factors referred to in the questionnaire. The whole question is one of price and it would appear that British prices are on as low a basis as is possible with the present cost of production in the United Kingdom.

Stationery.—In the higher grades of stationery such as note-paper pads, cream laid envelopes, cards, tag labels, etc., etc., the British supplier seems to be holding his own, but in the cheap varieties for the bazaar trade there is very keen competition from Germany at prices which are unapproachable. Thus, few British firms can compete with a Bavarian make of pencil which is being sold in the Calcutta bazaar at Rs. 2 per gross ! Samples of and detailed particulars regarding this and other types of competing stationery may be obtained from the Department of Overseas Trade.

One of the most astonishing features of recent years has been the way in which American manufacturers of expensive, high-grade articles such as the Parker duofold fountain pen and the Eversharp pencil—to cite two glaring cases—have built up a considerable business in the market through extensive advertising and painstaking selling methods. All the British standard makes of fountain pens and pencils have been on the market for years and in most cases are cheaper in price, but by dint of advertising and propaganda the more expensive American product has forced its way in and a very large trade is being done. The secret of this success is that the American manufacturer realises that the local merchant and distributor will never bear the cost of advertising so he conducts his own campaign on most modern lines and follows it up with personal visits.

Provisions.—Speaking generally, British exporters are maintaining their position and supply at least two-thirds of India's imports of goods of the same class. The only serious competition which is being encountered is from the United States in tinned salmon and other fish, Californian tinned and bottled fruits, Quaker oats and the type of canned goods exported by Heinz. Australia now supplies a very large share of the jams and jellies, while Dutch cheeses hold the market largely on account of their better keeping qualities, being protected by the hard spherical casing.

British exporters give quite as good facilities and service as their competitors and, in addition to resident representatives and agents, send out special travellers each cold weather. The leading American firms such as Süssma & Wörmser (" S. & W.") and Heinz have their own offices in India with a trained staff of salesmen working in conjunction with their agents. These offices control advertising, etc., and during the last Calcutta Exhibition Messrs. Heinz & Co. opened a most attractive tea and coffee stall, at which they displayed the various types of provisions manufactured by them, providing visitors with any of the " 57 varieties " they might care to sample.

Competition from France is stated to have increased during the last few years owing to the fluctuation of the franc exchange, but now that the franc is appreciating and French suppliers are quoting sterling rates, landed costs of French goods are not so attractive and the trade is likely to revert to normal proportions.

Rubber Tyres.—The most serious competition is encountered from the following makes in order of importance:—Michelin (French), Goodyear (American), Continental (German), Firestone (American), U.S. Rubber Export Company (American). All the principal competitors work on the same list price, so that, in theory, there is no price cutting. In practice, however, there is

reported to be a great deal of it, but whether this is approved by the manufacturers concerned or whether it is solely the fault of their Indian sub-agents cannot be determined.

Quality and service are the two factors that count in this market. The Dunlop Rubber Company (India), Ltd., have an organisation second to none and consequently secure a very large share of the trade. The sale of tyres in India is an intricate business, calling for a widespread and technical organisation and the holding of large stocks. Without such capital outlay the amount of trade which is likely to be obtained from agents in the ordinary way of business will not be great.

Electrical Apparatus and Fittings.—One of the leading British importing firms in Eastern India replies as follows to the questionnaire :—

" 1. Speaking generally, the bulk of the competition met with is of Continental origin. It is difficult to take any particular type or line in which competition can be said to be keenest, and Continental prices in all cases for such items as tumbler switches, lamps, lampholders, wiring accessories, etc., are below ours. They are also under British prices for machines such as motors, dynamos, etc.

2. With regard to lamps (with one notable exception), fittings and accessories, the quality is undoubtedly inferior to British-made articles.

We consider Continental dynamos, motors and other machines are also inferior to British productions as regards suitability for Indian conditions. In our opinion it is purely a question of price and we do not consider Continental-made articles in any way superior to the British productions handled by us.

The possible exception to the above are electrical fittings, where, while perhaps the quality and finish are not up to the British standard, they are suitable for the work required and sufficiently well finished generally to meet the demand of the Indian markets.

3. (*a*) As a rule the large German houses are prepared to give extended credit, extending in some cases to as long as two years.

(*b*) As far as we know, the German firms are at the moment granting very favourable terms to their agents or representatives. It is probable, however, that such terms will be considerably restricted when the Principals consider they are well established in the Indian market.

(*c*) Generally speaking, Continental firms are more amenable to supplying catalogues giving rupee prices.

(*d*) We do not consider that our foreign competitors are better served than we are with regard to such matters as representatives, travellers, catalogues, etc.

4. The principal point we would draw your attention to regarding this competition is price. Generally speaking, a better price can be obtained in the bazaar, as well as from mercantile houses, for articles of British manufacture, but of course there is a limit to the margin that can be obtained, and no hard and fast percentage could be laid down for the various percentages of different articles.

Broadly speaking, the above remarks apply more to accessories and comparatively small machines, and we cannot give an opinion as regards articles that may be classed as non-standard or novelties, as we do not handle these.

With regard to heavy plant, the ruling factor here is price, but British manufacturers are frequently handicapped by being held to a very rigid and

often onerous specification against which they have quoted, while foreign manufacturers can largely evade the specification owing to the difficulties of inspection during manufacture.

In summarising, the principal point for British manufactures, where possible, is reduction of price consistent with the maintenance of British quality, prompt shipment, careful attention to any special instructions given by indenting firms, careful attention to packing, continuous progress as regards improvement in design and manufacture."

In Bombay competition is keenest in electric light bulbs from Austrian and Dutch manufacturers and in dry batteries from German makers. So far as electric lamps are concerned, it must be remembered that conditions are governed by the International Association of Manufacturers which controls prices and markets.

So far as heavy electrical machinery is concerned, British firms —thanks to their very efficient organisation on the spot—are holding their own. The leading foreign competitors, such as the Siemens-Schuckert group, the A.E.G., the Swedish General Electric, the General Electric Company of Schenectady and the Westinghouse Company have established their own offices in India, staffed with salesmen and engineers, and are prepared to give service. They submit tenders for Government requirements, etc., and are securing an increasing amount of business. German activities are specially noticeable in the Punjab, where they secured the contract for the Lahore power plant on long-dated terms and are endeavouring to promote companies for supplying light and power to towns, offering to supply the plant on long-dated terms of payment, taking debentures as security.

Conclusions.—It is most striking that in the case of each of the selected trades in which foreign competition is most acute, the main reason why British manufacturers are losing ground is that their prices are above those of their Continental competitors. Most authorities admit that British quality still commands a premium in the bazaars, but this premium is not sufficient to bridge the gap between British and Continental quotations, which in many cases is as much as 15 to 30 per cent. It would appear to be quite impossible, in view of present conditions in the United Kingdom, to reduce prices to anything like this extent. So far as I am aware, very few of our great export industries are making even normal profits and in many cases they are prepared to quote prices which just cover cost of production and a share of overhead charges in order to keep up their production and reduce their on-costs. Labour costs in the unsheltered export trades are already on a minimum level and every effort is being made to secure economies in manufacture. The burden of Imperial and local taxation is unlikely to be very materially lightened for years to come. In these circumstances, any suggestion that prices should be reduced would be merely a counsel of perfection. On the other hand, if certain British manufacturers, after a careful study of bazaar demands all over the East, were to establish special plants

for the manufacture by mass production of low grade articles of the type required, they would have a chance to compete. They would require firstly to ascertain the prices at which there was a demand and then to produce the best possible quality and finish at that price. Any effort on these lines should, of course, not be made by old-established manufacturers under their own names, as it would be fatal to create an impression in the bazaars that there was any lowering of standard British quality. There would appear to be no sound reason however why such lower grade goods under different names and trademarks should not be sold side by side with the established marks of quality goods. This is the only practical suggestion I can make to solve this problem of the bazaar trade which gives ground for some anxiety, as our foreign competitors, having secured such a strong position in the lower qualities, will gradually compete more and more in the finer goods, which hitherto have been obtained almost exclusively from British sources.

As regards the higher priced articles used by the European, Anglo-Indian and well-to-do-Indian communities, the inquiry clearly shows that American competition is gaining ground owing to strenuous salesmanship, careful attention to the precise requirements of the market, generous commissions to representatives and agents, and a systematic advertising propaganda. The American manufacturer appears to have grasped the fact that he must follow up his goods until they reach the hands of the consumer by assisting his agents in every way, by granting adequate advertising and travelling allowances, and by occasionally visiting the market himself. Many British makers, on the other hand, consider that when once the goods are sold to a shipping merchant in London or an importing firm in India they have no further interest in them. They hold that all the expenses of distribution, advertising and propaganda work should be borne by the merchant. The fact remains that the average merchant or agent will not spend adequate sums on propaganda unless he receives the active financial support and encouragement of the manufacturer.

Prior to the last few years, the art of advertising was very imperfectly understood in India. Credit must be given to American exporters for stimulating an interest in this question. The leading Indian daily papers and technical magazines have advertising branches both in India and in London, which are prepared to advise manufacturers and carry out their wishes. One or two expert firms of advertising agents are now established in India with branches in London, and are competent to give advice and draw up schemes for covering India with every form of advertising, e.g. European and vernacular press, posters, railway advertising, leaflet distribution and follow-up campaigns. Names and particulars can be obtained from the Department of Overseas Trade. It is advisable, however, that any campaign of

this kind should be conducted after consultation with and with the co-operation of the manufacturers' representatives in India. A somewhat novel form of propaganda has recently been carried out by two or three Indian railways who have equipped special propaganda coaches and in one instance a special demonstration train fitted with a cinematograph apparatus in order to give publicity to the work of the Public Health, Agricultural, Civil Veterinary, Co-operative Credit and Industries Departments of the Government of Bengal and the Indian Tea Cess Committee. A demonstration car was allotted to each department, the train stopped at 30 stations during the period of a month's tour, when more than 1,200 miles were covered. This idea might be taken up by Trade Associations or groups of manufacturers, for the advertising of their goods throughout the whole of India. Rates could be obtained from the Railway Board for the use and transport of one or more coaches, or even of a complete train, throughout the whole of the broad gauge system of India. All the leading towns could be visited in turn and an exhibition held at each of them without any movement or re-packing of the exhibits. This would seem to be a most efficient method of advertising and selling the products of any of the industries having a widespread market in India.

CHAPTER III.

REVIEW OF THE ACTIVITIES OF THE INDIAN TARIFF BOARD DURING THE YEAR, WITH SPECIAL REFERENCE TO THE INQUIRIES INTO THE STEEL AND COTTON INDUSTRIES.

I have dealt at some length in previous reports with the adoption by the Government of India of the policy of discriminating protection. I have also described the previous inquiries by the Indian Tariff Board into the steel and other industries. In the present chapter I propose to deal at some length with the Board's reports on the steel and cotton industries, and then review quite briefly the inquiries into other industries such as coal, shipbuilding, wire and wire nails, galvanised hardware, &c.

STATUTORY INQUIRY INTO THE STEEL INDUSTRY.

On April 3rd, 1926, the Government of India issued the following resolution :—

" The attention of the Tariff Board is drawn to the fact that the Steel Industry (Protection) Act, 1924, will expire on the 31st March, 1927, and it is requested to re-examine the measure of protection afforded to the various articles covered by the Act and by Act VIII. of 1926. It will report in respect of each class of article whether it is still necessary to continue protection, and if so, whether the measure of protection now given should be increased or diminished or whether the form of the protection given should be altered. In making its recommendations, the Tariff Board will take all revelant considerations into account, including that stated in part (*b*) of the Resolution adopted by the Legislative Assembly on the 16th February, 1923, and if it thinks that in any case the assistance required can most suitably take the form of bounties, the source from which the money for the bounties can be obtained should be discussed. In dealing with the Tinplate Industry the Board will bear in mind its own observations in paragraph 31 of Chapter IV. of the second portion of its first Report. The Board will also be at liberty to examine the claims for protection of industries making steel products which do not come within the scope of the present Act and to report whether, having regard to the principles laid down in paragraph 97 of the Report of the Indian Fiscal Commission, such claims should be admitted."

Following the issue of this resolution, the Board published a communiqué outlining the scope of the inquiry to be held, enumerating the steel articles with which it would be concerned and inviting the opinions of the firms or persons interested in the inquiry. In response to this communiqué representations were received from the Tata Iron & Steel Company, Ltd., and from other firms and associations interested in the inquiry. A great deal of evidence was heard, all of which has been published, and on December 14th the Board signed their report which was subsequently published early in January. This report gives such a lucid account of the position of the Indian steel industry and also of the competition of Continental with British steel in the Indian market, that it should be carefully studied by every British firm interested in the Indian market.

Summary of the Board's Recommendations with regard to Steel.

" (1) A review of the progress of the steel industry during the past three years clearly shows the success of the policy of protection adopted in 1924. While the assistance given has been in no way excessive, it has substantially improved the position of the Indian steel industry.

(2) The output of finished steel at Jamshedpur was about 163,000 tons in 1923-24. The output in 1926-27 will probably be about 380,000 tons. We estimate that the output in the next seven years will average 500,000 tons and that the output in 1933-34 will be 600,000 tons of finished steel.

(3) The costs of manufacture have fallen as the output of steel has risen and we expect the reduction of costs to continue. The average works cost of all finished steel was Rs.126·5 per ton in 1923-24. Although the manufacture of the more expensive articles such as black sheet and galvanised sheet has commenced only since 1923-24, the average cost of all steel in August, 1926, was as low as Rs.98·4 per ton, and we anticipate that the average cost in 1933-34 will be only Rs.78·8 per ton.

(4) An allowance of Rs.39 per ton of finished steel will be adequate for overhead charges and fair profit for an average output of 500,000 tons during the next few years.

(5) If the rupee price of imported steel has remained at the 1923 level, little or no protection would be required. Prices of imported steel have, however, fallen substantially and unless protection is continued, it will not be possible to manufacture and sell Indian steel in competition with the imported product; the continuance of protection is, therefore, necessary.

(6) The payment of bounties should no longer form part of the scheme of protection.

(7) Competition in certain products comes almost entirely from the United Kingdom, and in others from the United Kingdom and the Continent. We regard it as probable that the prices of British steel in the future will be fairly stable, but the course of Continental prices cannot be foreseen. On economic grounds, therefore, it is advisable that two scales of duties be imposed, a basic duty fixed with reference to the price of British steel and an additional duty based on the margin between British and Continental prices, allowance being made for the difference in quality between the two kinds of steel. The basic duty will be levied on steel coming from all countries while the additional duties will be confined to non-British steel.

(8) A double scale of duties will best serve the economic welfare of the country generally and lead to an equitable distribution of the burden over the different classes of consumers, and at the same time ensure the stability of the scheme of protection.

(9) We have considered the question of recommending " anti-dumping " duties, and we are of the opinion that the imposition of such duties is impracticable.

(10) We believe that by 1933-34, the Indian industry should be able to meet British competition without the assistance of any protective or revenue duty, but that if Continental prices remain at their present level some measure of protection may still be required.

(11) While no time limit should be fixed for the continuance of the policy of protection, the basic duties should remain in force until increased, reduced, or otherwise modified after a statutory enquiry to be held not earlier than 1933-34.

(12) The additional duties may be reduced or raised during the period if the prices of non-British steel justify the change.

(13) The scheme of protection is not only adequate for the existing firm but affords the necessary encouragement for the expansion of the industry, provided that the Act giving effect to the proposals makes it clear that protection will be continued so long as economic justification for it exists.

(14) The scales of duties recommended involve a distinctly smaller amount of protection than the existing scheme, and the price of steel in India should be lower than at any period since the great war.

(15) We are of the opinion that power should be taken by the Governor-General in Council to ensure that proper provision for depreciation is made from time to time.

(16) The low level of duty proposed on rails is justifiable only if the Government arrange to purchase the whole of their requirements of rails in India so far as they can be produced in the country.

(17) It is essential in the interest of the Indian industry that railways should encourage the use of Indian structural steel by revising the designs for bridges and other structures so as to permit of the utilisation of the maximum amount of steel manufactured in India.

(18) The conditions of employment of Indian labour at Jamshedpur are found to be satisfactory, and good progress is being made in the appointment of Indians to the higher technical posts.

(19) Partly as a result of the recommendations regarding the duties required on rolled steel, it is proposed that in place of the present 25 per cent. *ad valorem* duty on fabricated steel, the basic duty should be 17 per cent. *ad valorem* and that an additional duty of Rs.13 per ton should be imposed on fabricated steel imported from elsewhere than the United Kingdom.

We recommend the imposition of the following duties :—

Product.	Basic Duty. Rs. per ton.	Additional duty. Rs. per ton.
Rails 30 lbs. per yard and over	13	—
Fishplates for above	Revenue duty (Minimum Rs. 6. per ton)	—
Structural sections (including wrought iron)	19	11
Bar and rod (including wrought iron) spikes and tie bars, rails under 30 lbs. per yard and fish plates for same	26	11
Plates	20	16
Ordinary sheets	35	24
Galvanised sheet	38	—
Steel sleepers	10	—
Fabricated steel structures*	17 per cent. ad valorem (minimum Rs. 22 per ton)	13
Coal tubs and tipping wagons	do.	13

Summary of the Board's Recommendations with regard to Tinplate.

" (1) The tinplate industry has effected remarkable progress and fully justified the policy of discriminating protection adopted by Government. Production has increased from 9,000 tons in 1923 to approximately 35,000 tons in 1926. Works costs have fallen from Rs.459 per ton in 1924 to Rs.313 per ton in the first seven months of 1926. A notable increase in the efficiency and skill of Indian labour has been achieved, and within three years of the commencement of operations it has been found possible to reduce the number of employees by approximately one-third. Financially, however, the results have not been so successful. The Tinplate Company of India has incurred heavy losses which we should estimate for the years 1923 to 1925 inclusive at Rs.50 lakhs. Recent

*The minimum basic duty and the additional duty on fabricated steel of other kinds vary according to the duties on the kinds of rolled steel used.

financial results, however, are more encouraging, and, with a reasonable measure of protection, we think the industry should be established on a firm basis in the near future.

(2) On a careful consideration of the possibility of effecting economy in manufacture during the period of protection, we have found it necessary to reduce the Company's estimate of works costs at the end of seven years from Rs.285 per ton to Rs.279.

(3) After considering the estimate of the present day valuation of the plant submitted by the Tinplate Company and the estimate of erecting a plant of similar type and capacity in Wales furnished by the Welsh Plate and Sheet Manufacturers' Association, we have formed the conclusion that a fair replacement value of the Company's works and town is about Rs.85 lakhs, in place of Rs.162 lakhs, the amount at which it at present stands in the Company's books.

(4) With the adjustments necessitated on account of freight, boxes for packing and wasters, the fair selling price which we recommend is as follows :—

	Rs. per ton.
Works cost	293
Overhead charges	22·76
Manufacturer's profit	18·09
Adjustments :— ...	
Freight	12·76
Wasters	18
Packing	2·8
Total	367·41

(5) We have based our estimate of the future selling price of imported tinplate, viz., Rs.320 per ton without duty, on the prices prevailing in the early months of 1926, disregarding the rise which has occurred subsequently on account of the coal stoppage in Great Britain.

(6) The difference between the fair selling price of Indian tinplate and the future selling price of imported tinplate is the measure of the duty which should be imposed and we accordingly recommend a reduction of the present scale of duty from Rs.85 to Rs.48 per ton.

(7) We are unable to support the claim that varieties of tinplate not manufactured in India should be exempt from the protective duty. Special varieties of tinplate bear a higher valuation and the duty which we propose will not be greatly in excess of a 10 per cent. *ad valorem* duty for such varieties. From the economic point of view we cannot agree to any discrimination of duty in favour of Wales, since it is with Welsh tinplate that the Indian product has mainly to compete.

(8) We recommend that the period for which protection should be continued be fixed at seven years.

(9) We are of opinion that at the end of that period the industry should be able to stand without any protection other than that afforded by the revenue duty.

(10) Finally, we consider that there are good grounds for believing that the industry will eventually be able to face competition even if the fiscal system of the country is so organised as to result in the reduction or even abolition of the revenue duty."

The Steel Industry Protection Bill (1927).—The main recommendations of the Board were accepted by the Government of India, were passed by the Indian Legislature and are embodied in the Steel Industry Protection Act (1927), a copy of which will be found in the Appendix to this chapter on page 233.

THE COTTON TEXTILE INDUSTRY INQUIRY, 1927.

The special Tariff Board inquiry into the Indian cotton mill industry was appointed by the resolution of the Government of India of June 10th, 1926, as follows :—

" The Government of India have received an application from the Bombay Millowners' Association requesting that the Tariff Board, or some other Committee similarly constituted and with similar powers, may be directed to enquire into the causes of the present depression in the Bombay cotton textile industry and to suggest the measures which might be taken to restore it to prosperity.

2. The Government of India agree that this enquiry should be made, and consider that it should be held as soon as possible. The Tariff Board is, however, at present fully occupied with the statutory enquiry into the steel industry required by the Steel Industry (Protection) Act, 1924. The Government of India have, therefore, decided to appoint a second Tariff Board for the purpose of the enquiry into the cotton textile industry, with the following terms of reference :—(1) to investigate the condition of the cotton textile industry in India, with special reference to the industry in Bombay and Ahmedabad; (2) to examine the causes of the depression in the industry and to report whether they are of a temporary or permanent character; (3) in particular, to consider whether, and if so to what extent, the depression is due to the competition of other countries in the home and export trade; (4) to report whether, having regard (i) to the fact that the industry has long been firmly established in India and (ii) to the interests of the consumer and to all other interests affected,— (*a*) the industry is in need of protection; and (*b*) if so, in what form and for what period protection should be given; and (5) to make any other recommendations that are germane to the subject.

3. The following gentlemen have agreed to serve on the Board :—

President :
F. Noyce, Esq., C.S.I., C.B.E., I.C.S.

Members :
Rai Bahadur Pandit Hari Kishan Kaul, C.S.I., C.I.E.
N. S. Subba Rao, Esq., M.A., Bar-at-Law, Principal and Professor of Economics, Maharaja's College, Mysore.

4. The headquarters of the Board will be at Bombay, but it will also visit such other places as it thinks necessary for the purpose of the enquiry. It will assemble at once and report to the Government of India at the earliest possible date."

The examination of witnesses began in Bombay on August 24th, 1926. The Board held forty sittings in all, in the course of which, in addition to the representatives of the Bombay, Ahmedabad and Baroda Millowners Associations, representatives of fifteen Chambers of Commerce, Labour Unions and other bodies were examined and also thirty-nine individual witnesses, almost all of whom had previously sent in written memoranda.

The report of the Board was not published until June 7th, 1927, when it was issued simultaneously in India and in London. It contains a very great deal of useful information which deserves careful study by Lancashire interests.

While a single report was presented, there was a difference of opinion between the President and his colleagues with regard to the proposal for a bounty on yarn. The majority of the Board proposed that the import duty on cotton piecegoods should be increased from 11 to 15 per cent. for a period of three years in order

to provide funds for a proposed bounty on the spinning of finer counts. The President, however, was opposed to the bounty and recommended that an additional duty of 4 per cent. should be imposed on all cotton manufactures, including yarn, imported from Japan for a period of three years.

Summary of Conclusions and Recommendations.—The Board summarise their findings subject to a long minute of dissent by the President as follows :—

" (1) The most striking feature in the history of the cotton textile industry in India from 1899 to 1922 is the expansion in every direction, especially in weaving.

(2) Other important features in the history of this period are the loss of the export trade in yarn, the gradually decreasing dominance of Bombay and the increasing share of Japan in the import trade.

(3) The present depression in the cotton textile industry has been and is much more acutely felt in Bombay than in other centres.

(4) The mills which have spinning departments only have been affected to a greater extent than mills which have both spinning and weaving departments.

(5) The demand for protection has not been as earnestly pressed from other centres as from Bombay and Ahmedabad.

(6) The altered relation between agrarian and general prices since 1920 has contributed to the depression in the industry.

(7) The boom and the depression in India have presented all the features which characterise a trade cycle.

(8) The course of American cotton prices has contributed to the depression in the industry.

(9) The competition of Japanese yarn exercises a depressing effect on the price of Indian yarn.

(10) Japanese yarn of 32's counts is being sold at a price which is practically equal to the cost of manufacture alone of yarn of this count in India without any allowance for profit or depreciation.

(11) In cloth of the lower counts, that is, in drills and sheetings, Indian mills are able to hold their own and it is, therefore, doubtful whether the Japanese imports in these lines control prices in India.

(12) In cloth of counts of 30's and above, the cost of manufacture alone in Indian mills is either practically equal to or higher than the Japanese sale price and Japanese competition, therefore, exercises a depressing effect on the prices of Indian mill production.

(13) The depreciation of the Japanese exchange, while it lasted, stimulated exports from Japan to India, but Japan now enjoys no special advantage in regard to exchange.

(14) Double shift working in Japan gives the Japanese industry an advantage of 4 per cent. on the actual cost of manufacture both of yarn and cloth. This advantage is considerably increased if a reasonable return on capital is included in costs of production.

(15) It does not appear that mills in Japan can, as a rule, obtain higher prices in the home market than they can from exports and a charge of dumping in the usual sense of the word cannot, therefore, be substantiated.

(16) Conditions of labour in Japan are inferior to those in India in respect of hours and the employment of women and juveniles at night.

(17) It must, therefore, be held that there is unfair competition between Japan and India, and that this competition is an important cause of the present depression in the cotton textile industry.

(18) The stabilisation of the rupee at 1*s.* 6*d.* coming as it has done at a time of falling prices, has rendered the problem presented by the disparity between prices and wages in the industry somewhat more pronounced."

(19) Over-capitalisation has contributed to accentuate the depression in Bombay.

(20) The dividends paid by the Bombay industry during the boom period were unduly high.

(21) Except to the extent that defects in the managing agency system such as undue conservatism and lack of initiative have contributed to the present depression that system cannot be held to be responsible for existing conditions.

(22) The use of inefficient machinery cannot be held to have affected the industry to any appreciable extent.

(23) Difficulties in arranging finance both by mills and dealers in piecegoods have contributed to accentuate the depression.

(24) The loss of the China trade in yarn is an important cause of the present depression in Bombay.

(25) The loss of the export trade in yarn has not been compensated appreciably by an increase in the export of piecegoods.

(26) The increasing competition of mills in Ahmedabad and other centres is also an important cause of the present depression in Bombay.

(27) Greater attention to diversification of production, more direct contact with consuming centres and greater alertness on the part of commission agents would to some extent have mitigated the severity of the depressions in Bombay.

(28) The depression in India has not been accompanied by any decrease in production but over-production cannot be held to be a cause of the depression.

(29) Labour costs in Bombay are markedly higher than those in other centres.

(30) High labour costs in Bombay cannot be held to have caused the depression but they have undoubtedly accentuated it.

(31) High local taxation has added to the difficulties caused by the depression in Bombay.

(32) Examination of the figures of cost of production in the various centres shows that by far the greatest disability in costs of manufacture from which Bombay suffers in comparison with Ahmedabad and other up-country centres is in its high costs of labour.

(33) Bombay is under substantial disadvantages as compared with other centres in regard to cost of fuel and power, cost of water and higher local taxation, but these appear to be rather more than offset by advantages in regard to cost of stores, of insurance and of office expenses.

(34) In regard to supplies of raw material the balance of advantage as compared with other centres is, on the whole, against Bombay.

(35) Proximity to local markets is a factor which operates appreciably to the benefit of the mills in up-country centres.

(36) To the extent that the depression in the cotton textile industry in India is the outcome of the cyclical character of trade, it is not of a permanent nature.

(37) It is impossible to express a definite opinion as to how far foreign competition can be regarded as a permanent cause of depression.

(38) The loss of the China trade in yarn must be regarded as a cause of depression which is of a permanent character.

(39) Whether the increasing competition with the Bombay industry of Ahmedabad and other up-country centres is a temporary or permanent cause of depression must depend on the steps taken by the Bombay industry to meet it.

(40) In regard to the purchase of raw material in Bombay, a single hedge contract is the ideal to be aimed at but, in the meantime, proposals on the lines of the scheme put forward by Messrs. Forbes, Forbes, Campbell and Company for reducing the number of the existing hedge contracts and widening their scope should again be placed before the Representative Committee of the East India Cotton Association.

(41) Managing agents would be well advised to employ brokers who do not operate on their own account and who are not themselves in actual possession of cotton.

(42) No economies in the cost of fuel and power appear possible in Bombay.

(43) A further reduction in the charge for water in Bombay is desirable.

(44) Managing agents should exercise the closest supervision over all purchases of stores.

(45) The only alternative to a reduction in wages in the Bombay mill industry is increased labour efficiency and it is in this direction that the true line of advance lies.

(46) The general adoption in Bombay of the system of maintaining a labour reserve to provide against absenteeism is desirable.

(47) The piecework system should be extended to spinners in Bombay and should be accompanied by an increase in the number of spindles allotted to each spinner.

(48) The disparity between the wages of spinners and weavers is a matter which demands the attention of the industry.

(49) An increase in the number of looms attended by a weaver would tend to economy and give increased earnings to the weaver even when accompanied by a slight reduction in rate.

(50) Economies similar to those suggested in the spinning and weaving departments can be effected in the preparatory departments.

(51) If the efficiency of operatives is to be improved, it is essential that there should be an improvement in the standard of efficiency of jobbers.

(52) Increased efficiency cannot be expected from operatives unless they are provided with suitable raw material. The existing tendency to spin higher counts of yarn than the quality of the cotton warrants causes breakages and increases the work of the spinner and the weaver.

(53) The fixation of a definite period of rest to enable operatives to take their morning meal is desirable.

(54) Labour should be recruited directly by the officer in charge of the department of the mill which requires it or by a responsible assistant and not by the jobber.

(55) The practice of compelling weavers to take over cloth spoilt by defective workmanship at its full value should be abolished.

(56) Fines levied should be used for the benefit of the operatives as a body.

(57) The standardisation of wages throughout the Bombay mill industry would undoubtedly strengthen the position of the industry. A suitable scheme could only be drawn up in consultation with the representatives of labour.

(58) Blocks of the chawls built by the Bombay Development Department might be taken over and administered by groups of mills or by the Bombay Millowners' Association as a body.

(59) The town duty of one rupee per bale should be reduced to eight annas per bale on all cotton consumed by the Bombay mills.

(60) More attention to welfare work on the part of the Bombay mill industry is desirable when financial conditions permit.

(61) Certain alterations in the courses in cotton textiles in the Victoria Jubilee Technical Institute are desirable.

(62) The provision of more facilities for technical education of mill operatives, especially jobbers, is essential to any improvement in efficiency. The early establishment of Trade Schools in Bombay is, therefore, desirable.

(63) The preparation and distribution of technical handbooks, in the vernacular, plentifully illustrated and drawn up on suitable lines, for the use of jobbers and operatives should be undertaken.

(64) The high labour costs in Bombay cannot be reduced by the introduction of the Northrop looms but the experiments with the Whittaker attachment should be continued.

(65) Bombay is not a suitable centre for the adoption of the double shift system since the city is already very congested and the presence of the additional labour force which would be required would increase this congestion.

(66) The desirability of imposing additional assessment on " toka " lands in graduated stages when the present assessment expires should be considered.

(67) The Bombay Millowners' Association should consider the possibility of undertaking fire insurance for its members.

(68) No economies under the head of technical and supervising staff can be suggested but the proper training of such staff should be insisted on in all cases.

(69) Depreciation, including any amount which may be in arrears, should invariably be regarded as a first charge on profits.

(70) Mill stocks should in all cases be checked at audit.

(71) The practice of employing an auditor who is related to the managing agent is open to objection and should be discontinued.

(72) The Bombay Millowners' Association should take immediate steps to obtain a full range of samples and to maintain a full record of prices of all imported cotton manufactures which compete with Indian goods.

(73) The Bombay Millowners' Association should constitute sub-committees to deal with questions relating to export and home markets, finance, labour, registration of labels and numbers, supply of raw material and woollen mills.

(74) Combined action should be taken by the Millowners' Associations and other bodies interested to ensure that the quality of cloth sold under a particular number is maintained.

(75) At least one member of each firm of managing agents should have received technical training.

(76) The practice of investing the surplus funds of mills with firms of shroffs is undesirable and should be discontinued, as should that of lending the funds of one concern to another under the same managing agency.

(77) Writing down of capital in the Bombay mill industry is a matter which calls for further attention.

(78) Bombay should utilise to the full its natural advantages in the matter of climate and situation for the production of goods of higher counts than it has done in the past.

(79) The difficulties in regard to suitable raw material are not insurmountable, and can be overcome temporarily by greater use of American and African cotton.

(80) The charges levied for fumigation are a handicap to the use of American cotton.

(81) In a great expansion in the Bombay mill production of bleached, coloured, dyed and printed goods lies one remedy for the depression in the industry in Bombay.

(82) There is no reason why the printing industry should not be successfully established in India, provided the operations are on a sufficiently large scale, and the latest developments in technique are utilised to the full. It is necessary, therefore, that the matter should be taken up by a combination of mills.

(83) A large factory for combined printing, bleaching and dyeing should be established in or near Bombay and there would seem to be great advantages for placing it at Ambernath.

(84) Greater attention to the quality of production is desirable.

(85) The practice of selling yarn under double numbers is undesirable, and should be discontinued.

(86) Both the system of sales on commission and that of selling through the mills' own shops have advantages and it is not possible, therefore, to say which is preferable.

(87) Representatives of mills should visit the consuming centres from time to time in order to acquaint themselves closely with the character of demand.

(88) The Bombay Millowners' Association should arrange for trade correspondents in the principal consuming centres.

(89) Managing agents should not act as guarantee brokers for the mills they control.

(90) It is desirable that the finance of the cotton industry should be investigated and that an enquiry into the possibility of introducing the warehouse system into India should form part of this investigation.

(91) The development of the export trade of Bombay would be a valuable means of relieving the depression.

(92) Coloured and dyed goods form the largest part of the exports of piece-goods and further expansion of this side of the Bombay industry would, therefore, strengthen its position in the foreign market.

(93) It is essential to the development of the export trade of Bombay that adequate information regarding foreign markets should be available and that the industry should be in a position to utilise it.

(94) The industry should examine the feasibility of a combination of the mills interested in the export trade for the purpose of arranging such details as manufacture of lines required, allocation of quantities among the members and prevention of imitation of marks and numbers.

(95) The statistical information regarding the industry should be improved in certain respects.

(96) High protective duties on the scale advocated by the Bombay and Ahmedabad Millowners' Associations cannot be justified.

(97) The claim for a protective duty of $4\frac{1}{2}$ per cent. to enable the Indian mill industry to make provision for depreciation of plant and machinery cannot be admitted.

(98) No justification exists for a differential duty against Japan on the ground of depreciated exchange.

(99) The case for a small all-round increase in the import duty on cotton manufactures other than yarn is strengthened by the undoubted temporary handicap imposed on the industry by the stabilisation of the rupee at 1*s.* 6*d.*

(100) A moderate measure of protection both for yarn and cloth can be justified for such period as labour conditions in Japan continue inferior to those in India.

(101) An additional duty on yarn is undesirable in view of its effect on the handloom industry.

(102) A differential duty against Japan is undesirable.

(103) The proposal to give protection against unfair competition from Japan in the form of specific duties levied on the class of goods which are in the main imported from that country is open to several objections and cannot be supported. Protection to the industry should, therefore, be given in the form of an addition to the present duty on all cotton manufactures other than yarn.

(104) No justification for an export duty on cotton can be established.

(105) The concession of free entry enjoyed by cotton mill machinery and mill stores prior to 1921 should again be granted.

(106) The most satisfactory method of working the concession so far as stores are concerned would be to grant total exemption for stores which can only be used in the mill or handloom industries and to exempt other stores from duty if imported direct by a mill or to grant a refund on them when they are purchased from " stockists." Two lists have been drawn up accordingly.

(107) A stimulus to the production of goods of higher quality can best be given in the form of a bounty on the spinning of higher counts of yarn instead of by an additional import duty on yarn.

(108) A bounty of one anna per pound, or its equivalent on yarn of 32's and higher counts, based on the production of an average of 15 per cent. of the total working spindleage in a mill in British India would meet the situation.

(109) The operation of the bounty should be limited to four years.

(110) The bounty should be limited to the production of 15 per cent. of the spindleage in any mill and would not be given unless the total spindleage employed on higher counts exceeded $7\frac{1}{2}$ per cent. and the average count spun was not below 34's.

(111) One great advantage of this scheme is that the position of the hand-loom industry will not be affected.

(112) As the majority of Indian mills have both spinning and weaving departments, the absence of protection for the lower counts of yarn is compensated by the additional all-round duty on cloth. Contingencies may arise in which an additional duty on yarn would be justified.

(113) If a satisfactory scheme for a combined bleaching, dyeing and printing plant can be put forward by the Bombay mill industry, assistance from Government should be given.

(114) No justification can be established for the grant of export bounties.

(115) Two Trade Commissioners should be appointed, one at Basra and one at Mombasa.

(116) Before Trade Commissioners are appointed for other countries, a rapid survey of the potentialities of the markets in those countries should be undertaken by a small mission.

(117) It is most important in the interests of the Bombay mill industry that it should have its own representatives in the principal export markets. Expenditure by the Bombay Millowners' Association in this respect should be supplemented for four years by the grant of an equal amount from Government up to a maximum of Rs.25,000 annually.

(118) The question of subsidising shipping freights should be investigated by the Trade Commissioners and by the commercial mission suggested in (116). Combination on the part of the Bombay Millowners' Association would place it in a much stronger position to negotiate with shipping companies.

(119) The difficulties in applying a policy of discrimination in regard to railway freights to the cotton textile industry are insuperable.

(120) Specific complaints in regard to inequalities of railway freights are a matter for investigation by the Railway Rates Advisory Committee.

(121) The existing facilities in the matter of railway sidings in Ahmedabad are sufficient.

(122) The charges for the fumigation of American cotton entering India are levied in the interests of the cultivators of cotton and should be borne by general revenues.

(123) No case has been made out for the abolition of company super-tax.

(124) The cost of those proposals which involve expenditure should be met by an additional import duty of four per cent. on all cotton manufactures other than yarn.

(125) This duty should be imposed for a period of three years.

(126) No justification has been established for the special treatment of the hosiery industry.

(127) The abolition of the duty on yarn of counts above 40's or the grant of a rebate of the duty to mills using such yarn cannot be supported."

Resolution by the Government of India.—The Government of India on June 7th, 1927, issued the following resolution of the Department of Commerce which was published along with the Report of the Board :—

"*Reference to the Tariff Board.*

On the application of the Bombay Millowners' Association, the Government of India appointed a special Tariff Board in June, 1926, to investigate the condition of the cotton textile industry, to examine the causes of the depression, and in particular to consider whether the depression was due to the competition of other countries. The Board was instructed to report whether the industry was in need of protection and, if so, in what form and for

what period protection should be given. The Board was further instructed to make any other recommendations germane to the subject.

Findings of the Tariff Board.

2. The Board has found that the present depression is largely due to causes which are not peculiar to India, but are world wide in their operation. In India itself the depression has been much more acutely felt in Bombay than in other centres, and the Board attributes this state of affairs partly to causes for which the mill-owners themselves are responsible, partly to the competition of the mills in other parts of India, and partly to competition from Japan. Under the first head stress is laid on undue conservatism and insufficient diversification of production, while the relative prosperity of the mills in other parts of India is ascribed mainly to the natural advantages they possess, particularly in a lower rate of wages, and also in their proximity to their markets and to the area from which they obtain their raw material. The Board has emphasised the importance of the increasing competition of the mills in other parts of India as a menace to the industry in Bombay, and considers that it constitutes a problem not less urgent than that which arises from competition from abroad.

3. The Board has found that the competition from abroad, from which the Bombay mill industry is suffering, is from one country only. It was not contended by the Bombay Millowners' Association that either the volume of the imports from the United Kingdom or the prices at which they were sold had in any way been a contributing cause of the present depression; and in regard to imports from all countries other than Japan, the Board has found that there has been no change to the disadvantage of India as compared with the pre-war position. On the other hand, Japanese competition is severely affecting the industry in respect both of yarn and piecegoods, and in so far as this competition is facilitated by inferior conditions of labour in Japan, the industry has, in the Board's view, established its claim to protection against it. The inferior conditions particularly referred to arise from the provision of the Japanese Factory Law which permits for the present the employment of women by night, and thereby enables the Japanese mills to work double shifts. The advantage to the Japanese mills in the actual cost of manufacture, according to the Board's estimate, is about 4 per cent. on both yarn and cloth; but if a reasonable return on capital is included in the cost of production, the advantage increases to 10 per cent. on yarn and 12½ per cent. on cloth. The Japanese mills will, the Board thinks, retain their advantage until the date when the amended Factory Law comes into full operation, which is expected to be the 1st July, 1929; and in that case any influence on the market of stocks accumulated before that date should have disappeared by the end of the official year 1929-30. All the findings of the Board which

have been mentioned are unanimous, except as regards the estimated advantage to a Japanese mill working double shifts, if a fair return on capital is included in the cost of production.

Recommendations of the Tariff Board.

4. In addition to a number of detailed recommendations directed towards the improvement of the internal organisation of the industry, which cannot be summarised here, the Board has made two important recommendations designed to assist the industry in securing greater diversification of production, and to stimulate a larger output of goods of higher quality. The first is the establishment, with financial assistance from Government, of combined bleaching, dyeing and printing works at Bombay. This recommendation is unanimous. The second, which is put forward by a majority of the Board, is for the payment, for a period of four years, of a bounty of one anna per pound, or its equivalent, on the production of yarn of 32's and higher counts, based on the output of an average of 15 per cent. of the total working spindleage in a mill. The cost of this bounty, including the cost of administration, is estimated to be about Rs.39 lakhs per annum. The President of the Board (Mr. Noyce) dissents from this recommendation.

5. A majority of the Board has proposed that the import duty on cotton piecegoods should be increased from 11 to 15 per cent. for a period of three years. The primary object of this increase is to provide funds to meet the cost of the proposed bounty on the spinning of the finer counts, and of certain other proposals made by the Board, but it will also serve to reduce the rigour of the competition from Japan from which the industry suffers. No increase in the duty on yarn is recommended by the majority in view of the effect that such a measure might have on the handloom industry. The President of the Board (Mr. Noyce) does not consider that an all-round increase in the import duty on piecegoods can be justified, but has recommended that an additional duty of 4 per cent. should be imposed on all cotton manufactures, including yarn, imported from Japan for a period of three years.

6. The Board has proposed several other measures for the assistance of the industry by Government. Most of these are under separate consideration, and only one can be mentioned here. The Board has unanimously recommended the remission of the import duty on cotton textile machinery and on certain mill stores for a period of three years, after which the question of continuing the remission would be considered in the light of the conditions then existing. The loss of customs revenue from this remission, according to the Board's estimate, is about Rs.50 lakhs per annum.

7. Finally, the Board emphasises its view that the State aid and the changes in the tariff which it has proposed can, in themselves, prove no more than palliatives, and would indeed fail in

their purpose if they did not succeed in stimulating and encouraging the industry to undertake reorganisation and effect economies on the lines suggested.

Decisions of the Government of India.

8. The Government of India are unable to accept the recommendation of the majority of the Board that the spinning of the higher counts of yarn should be stimulated by the grant of a bounty. They are satisfied that the administrative difficulties in working a scheme of the kind proposed are insuperable, and they agree with the view expressed by the President of the Board (Mr. Noyce) that a long established industry, such as the cotton textile industry in Bombay, should need no stimulus at the cost of the general taxpayer, if such a development is in its own interest. As regards the proposal that Government should contribute towards the cost of establishing combined bleaching, dyeing and printing works in Bombay, the Government of India are unable to express any opinion until they have ascertained the views of the Local Government and of the cotton mill industry in Bombay and elsewhere.

9. The rejection of the proposed bounty on the spinning of the finer counts removes the principal reason advanced by the majority of the Tariff Board for a general increase in the import duty on cotton piecegoods. The Government of India are also satisfied that, on the facts as found by the Board, no case has been established for a general increase in the duty as a measure of protection.

10. The Government of India accept the finding of the Board that the advantage to Japan resulting from labour conditions in that country, until the amended Factory Law comes into full operation, in actual cost of manufacture may be assessed at about 4 per cent. on both yarn and cloth. In making this calculation, the Board has allowed for the fact that double shifts are universal in spinning mills in Japan, but not in weaving mills, in which the average hours worked are only 14·45 hours. But the majority of the Board omitted to make a corresponding allowance, when calculating the advantage if a reasonable return on capital is included. Hence the advantage to Japan, when calculated on this basis, should be 10 per cent. on cloth and not 12½ per cent., as stated by the majority of the Board. It follows that the advantage to Japan, even if a reasonable return on capital is included, is already sufficiently covered by the existing revenue duty of 11 per cent. on cotton piecegoods. No additional duty on this account can, therefore, be justified. The existing revenue duty on yarn is only 5 per cent. and in this case, if calculation of the majority is accepted, the advantage to the Japanese mills is not fully covered. But an additional duty on yarn only would affect prejudicially the handloom industry, and for this reason should not be imposed.

11. The removal of the import duty on machinery and on the materials of industry was recommended by the Fiscal Commission and is in accordance with the principle of the resolution adopted by the Legislative Assembly on the 16th February, 1923, that the fiscal policy of the Government of India may legitimately be directed towards fostering the development of industries in India. In giving effect to this principle, as revenue considerations permit, the Government of India are prepared to give precedence to articles used chiefly by industries which are passing through a period of depression. But they would be unwilling to differentiate between industry and industry by allowing one industry to import free of duty articles on which other industries have to pay duty. The Government of India have decided, therefore, to deal on these lines with the recommendation of the Board that the import duty on cotton textile machinery and mill stores should be remitted for a period of three years.

12. The Government of India will introduce legislation at the next session of the Indian Legislature to remove altogether, with effect from the 1st October, 1927, the duties on the following articles :—

> All machinery and component parts of machinery as defined in items Nos. 51, 51A and 51B of the Import Tariff Schedule (Schedule II to the Indian Tariff Act, 1894); aniline and alizarine dyes; bleaching powder and paste; farina; china clay; sago flour; magnesium chloride; starch; tallow; and cotton ropes.

It is estimated that the consequent loss of customs revenue will be Rs.45 lakhs in 1927-28 and Rs.85 lakhs in a full year. The removal of the duty on machinery is subject to the proviso that it may be necessary to re-impose an import duty on particular kinds of machinery, if it appears, on a report by the Tariff Board, that it is desirable to encourage the manufacture in India of such machinery and that a protective duty is required for that purpose, or that the imposition of a duty is necessary in order to secure equality of tariff treatment and remove a handicap under which the manufacture of such machinery in India would otherwise suffer.

13. The remaining recommendations of the Board, in so far as they concern the Government of India, are under consideration."

The Government of India have since modified their decision to leave the duty on cotton yarn unchanged and the 5 per cent. duty on cotton yarn has been made subject to a specific minimum of 1½ annas a pound. This increase will affect Japanese more than British imports. The decision not to increase the import duty on cotton cloth holds good.

INQUIRY INTO THE COAL INDUSTRY.

This question was remitted to the Tariff Board in a resolution of the Government of India, dated 30th September, 1925, reading as follows :—

" In accordance with the statement made in the Legislative Assembly on the 15th of March, 1924, the Government of India have now decided to refer to the Tariff Board for investigation the question whether a protective duty should be imposed on imported coal generally or on coal imported from any particular country or countries, and, if so, at what rates."

After an exhaustive inquiry, the decisions of the Board were issued in April, 1926, in the form of a majority and minority report. The President and Mr. Matthai made the following recommendations :—

" (1) On the South African railways coal for bunkering and export is carried at a rate which is lower by 5*s.* 7½*d.* a ton than the domestic rate for the same distance.

(2) Some reduction as compared with the domestic rate could be justified on the ground that, directly or indirectly, the railways gained from the increase in traffic, but it is not possible in this way to explain a reduction of about 45 per cent.

(3) The freight concessions to the export coal and part of the bunker coal are integral parts of a policy which aims at the development of a large export trade, and were granted not merely in order to increase the railway traffic but also in the interests of the coal industry. Special assistance of this kind is equivalent to a bounty on export and must be regarded as unfair competition.

(4) The exact amount of the bounty cannot be determined but it is not more than 5*s.* 7½*d.* nor less than 2*s.* 3*d.* a ton.

(5) An additional duty of Rs.1-8 a ton on South African coal would suffice to give the Indian coal industry all the benefit it could derive from a duty of this kind.

(6) It is doubtful whether the price of Indian coal in Bombay and Karachi would rise at all as a result of the duty, but the increase (if any) would not be more than 12 annas a ton. There would be no increase elsewhere.

(7) A duty on South African coal would not add appreciably to the costs of any Indian industry.

(8) The invasion of the Indian markets by South African coal is not due to the bounty alone but also to the unsatisfactory quality and condition of the Indian coal sent to Bombay and Sind in recent years. Part of the responsibility for the latter factor rests on the shoulders of the coal industry in Bengal and Bihar.

(9) The increase in the sales of Indian coal in Bombay and Sind resulting from the duty would not exceed 100,000 tons a year when allowance is made for the coal re-exported, the probable increased imports from other countries, and the increase which is probable even without protection.

(10) A duty on South African coal would do little to diminish employment or to prevent the shutting down of mines.

(11) The competition of South African coal has been felt not only in Bombay and Sind, but also in Ceylon and the Far East, and the loss of the latter markets is a much more serious matter than any injury suffered in the former. The imposition of a countervailing duty on South African coal will do nothing to help the coal industry where help is most needed.

(12) A duty on South African coal might provoke retaliatory measures and the possibility of effective retaliation by the South African Government cannot be excluded.

(13) In all the circumstances of the case it is inadvisable to impose a countervailing duty on South African coal."

Mr. Ginwala, however, while concurring substantially in the findings numbered 1, 3, 4, 5, 6 and 7 above, considered that there was no justification for imposing a protective duty on imported coal generally, but definitely recommended :—

" (1) that a duty of Rs.1-8-0 per ton in addition to the present duty of Rs.0-8-0 per ton should be imposed on all South African coal entering India. This should suffice to enable Indian coal to compete successfully against South African coal in any port in India."

— and —

" (2) that the duty should be increased if any counter action is taken by the South African Government or if South African coal still enters India."

Decision of the Government of India.—The decision of the Government of India was announced in Resolution No. 47-T (78) of the 17th July, 1926, reading as follows :—

" The report of the Tariff Board on the question whether a protective duty should be imposed either on all imported coal or on coal imported from any particular country or countries was published for general information on Friday, the 16th July.

The Government of India accept the unanimous finding of the Tariff Board that the case for a protective duty on all imported coal has not been established.

The facts reported by the Tariff Board show that an additional duty on coal imported from South Africa might be imposed under section 8A of the Indian Tariff Act, 1894, but the Government of India accept the finding of the majority of the Board that in present circumstances action under that section is not advisable."

INQUIRY INTO THE SHIPBUILDING INDUSTRY.

The Tariff Board were directed to examine the question of the import duties on imported boats, barges, flats and steamers and on the imports of shaped and fabricated parts for such vessels by the resolution of the Government of India in the Commerce Department, dated 28th March, 1925, which reads as follows :—

" In paragraph 16 of the second portion of the original Report regarding the grant of protection to the steel industry, the Tariff Board considered as a general conclusion that an increase in duties on unfabricated steel did not necessitate any increase in the duties on imported boats, barges, flats, steamers, etc. The Board did not arrive at any distinct finding as to the duties which ought to be imposed when such vessels were imported as shaped and fabricated parts for erection in India, as that question was not brought to the notice of the Tariff Board. This question is now referred to the Tariff Board for enquiry and report with special reference to a representation received from the Irrawaddy Flotilla Company that the general conclusion of the Tariff Board should be held to cover the imports of shaped and fabricated parts for such vessels."

Findings of the Board.— The Board summarise their conclusions by stating :—

" It is clear that before the war the Indian shipbuilding industry did not require protection, for materials and finished product alike were free of duty, and the industry grew and prospered. It has not been shown that present-day conditions are more unfavourable to the Indian shipbuilder than they were

formerly; except in respect of (*a*) the protective duties on steel and (*b*) the rise in the exchange, there is no evidence that the British builder can underquote the Indian builder and very few ships have been imported. The natural inference is that, if there were no duty on unfabricated steel and the exchange were at 1*s.* 4*d.*, no duty on imported ships would be necessary. The protective duties on steel increase the costs of the Indian builder by Rs.35 per ton of fabricated material, and a specific duty of the same amount on imported material would equalise matters in this respect. A 10 per cent. duty on the galvanised material imported by the Irrawaddy Flotilla Company would amount to from Rs.72 to Rs.84 a ton, and obviously a higher duty is not needed. What a 10 per cent. duty on ungalvanised shipwork would amount to cannot be ascertained, but if the British costs are approximately the same as the Indian, it would be about Rs.24 a ton on flats and barges and Rs.30 a ton or more on power craft. The effect of the rise in the exchange on the cost of the imported material cannot be calculated precisely, because the British cost of fabrication is unknown. There are reasons for believing, however, that the Indian builder has the advantage in this respect, for flats and barges are almost never imported, and when orders for steamers and other craft are placed in England the price is not the decisive factor. The rise in the exchange is not itself a sufficient ground for imposing on imported vessels a higher duty than 10 per cent., but it makes it more necessary to ensure that the duty on the fabricated steel hulls of imported vessels should not be less than the duty which the Indian builder has to pay on the unfabricated steel which he purchases. It is only to this extent that there are sufficient reasons for imposing a higher duty than 10 per cent. on imported ships.

Our proposal is that the duty on the fabricated steel parts of ships and other inland vessels should be fixed at 10 per cent. but subject to the proviso that the duty shall in no case be less than Rs.35 a ton. There will then be no danger that the Indian builder will pay a higher duty on the material he purchases than the importer pays on the finished product. The minimum rate of duty proposed is based on the existing rates of duty on plates and structural sections, and may require modification if, as a result of the statutory enquiry which is about to commence, the duties on unfabricated steel are changed. It will be a simple matter, however, to make the necessary alteration, for full information has been obtained in this enquiry as to the proportion of the various kinds of unfabricated steel in several types of vessel and the extent to which the Indian shipbuilder's costs are increased by the protective duties can be calculated without difficulty."

Decision of the Government of India. — This was published in the resolution No. 221-T (2) of the 14th August, 1926, as follows:—

"The report of the Tariff Board regarding the grant of protection to the shipbuilding industry was published for general information on Friday, the 13th August.

The Government of India accept the finding of the Tariff Board that the shipbuilding industry in India does not require protection, except in so far as it is affected by the protective duties on iron and steel.

They also agree with the Board that the duty on ships and other vessels for inland and harbour navigation when imported in parts, should be 10 per cent. *ad valorem* subject to a minimum of Rs.35 per ton on protected iron and steel.

But as the Board have pointed out, this minimum rate is based on the existing rates of duty and may require modification as a

result of the statutory inquiry into the iron and steel industry which is now in progress. The Government of India, therefore, have decided to postpone legislation to give effect to the Board's present recommendation until the result of the statutory inquiry is known. Meanwhile, however, they have decided to exempt by notification under Section 23, Sea Customs Act, the iron and steel in ships and other vessels imported for inland and harbour navigation from so much of the protective duties as is in excess of 10 per cent. *ad valorem* or Rs.35 per ton, whichever is higher."

INQUIRY INTO THE WIRE AND WIRE NAIL INDUSTRY.

In the resolution of the Government of India in the Commerce Department dated June 18th, 1925, the Tariff Board were directed to examine the question to what extent the protection given to certain classes of steel by the Steel Industry (Protection) Act, 1924, required to be supplemented. This inquiry falls into three parts as follows:—

I. The application for supplementary protection of wire and wire nails put forward by Indian Steel Wire Products Ltd.

II. A proposal made by the Pioneer Nail Manufacturing Company and the Punjab Wire Nail Factory that a higher duty should be imposed on nails than on wire; and

III. A request by Halley Brothers Ltd. for exemption from the protective duties on the wire and wire rod used by them in the manufacture of hackles.

Conclusions of the Board.—I. As regards the grant of supplementary protection to the manufacture of wire and wire nails, the Board find as follows:—

" (1) The amount of the supplementary protection required, so long as imported rod is used, is Rs.40 a ton and Rs.53 a ton from the date when the Tata Iron and Steel Company begin to supply rod.

(2) The supplementary protection, if given, should take the form of a bounty on production.

(3) Facts have been brought to light which suggest that, if protection for wire and wire nails is continued after March 31st, 1927, it may be on the basis that the industry is a separate one using imported materials.

(4) Until this question has been examined, it is not desirable that Government should incur further commitments in support of the industry. We have, therefore, no recommendation to make for the grant of supplementary protection."

The Board proceed to recommend that as a special concession Indian Steel Wire Products, Ltd., should be granted a rebate of the duty already paid by them on certain imports of wire rod amounting to the difference between the duty already paid and a duty calculated at 10 per cent. *ad valorem*. They also recommend that until March 31st, 1927, the Wire Company should be allowed to import the rod they require subject to a duty of 10 per cent.

II. With regard to the proposal that a higher duty should be imposed on nails than on wire, the Board find that:—

" No good grounds have been made out for protecting the manufacture of nails as a separate industry using imported materials. The industry, since it does not utilise Indian steel, has no natural advantages except cheap labour, its developments would be of no substantial advantage to the country for the

number of workmen employed would be small, and the opportunities for acquiring industrial experience and training inconsiderable, and if protection were once granted, it could never be discontinued. For these reasons we have no recommendation to place before the Government of India."

III. The Board do not recommend that any special concession should be given to Messrs. Halley Brothers Ltd.

Decision of the Government of India. — This was published in resolution No. 362-T (3) of the 17th July, 1926, as follows :—

Section I.

" The protection of wire and wire nails was recommended by the Tariff Board in their report on the first inquiry into the steel industry. Effect was given to the Tariff Board's recommendations in the Steel Industry (Protection) Act, 1924, which imposed a protective duty of Rs.60 per ton on wire and of Rs.3 per cwt. on wire nails. The Tariff Board have no recommendation to make for the grant of supplementary protection, and consider that the question of future protection should be fully examined in the statutory inquiry into the steel industry which is now proceeding. The Government of India accept this finding.

The Steel Industry (Protection) Act, 1924, also imposed a protective duty of Rs.40 per ton on all sizes of steel bar and rod. Wire and wire nails are manufactured from steel rod of small gauge. But the Indian Steel Wire Products, Limited, which was the only firm making wire and wire nails, had an agreement with the Tata Iron & Steel Company for the purchase of wire rod at a price which was not dependent on the import duty. The Tariff Board, therefore, considered that the protective duty on steel rod would not conflict with the protection of wire and wire nails. But the Tata Iron & Steel Company have not yet produced steel rod of small gauge, and it is reported that it would not be to their interest to manufacture it. Thus the protective duty is not only unnecessary, but also operates to diminish the protection on wire and wire nails which the Act was intended to give. In these circumstances, the Tariff Board recommend that the protective duty on steel rod and round bar of less than $\frac{1}{2}$ inch diameter should be removed. The Government of India accept this recommendation, and have decided to remit, by notification under section 23 of the Sea Customs Act, so much of the present duty as is in excess of the former revenue duty of 10 per cent. *ad valorem*.

Section II.

The Tariff Board do not recommend that a higher duty should be imposed on wire nails than on wire. The Government of India accept this finding.

Section III.

The Tariff Board consider that the removal of the protective duty on steel rod and round bar of less than $\frac{1}{2}$ inch diameter will give sufficient relief to the manufacture of hackles. The Government of India accept this finding."

INQUIRY INTO THE GALVANISING INDUSTRY.

This inquiry was remitted to the Board in the resolution of the Government of India dated March 28th, 1925, and deals with two applications presented by the Indian Galvanising Company, Ltd., as follows :—

(1) that the 15 per cent. duty on imported spelter should be abolished; and
(2) that the 15 per cent. duty on imported galvanised hardware should be increased to at least 20 per cent.

With regard to the first application, the Board recommend that :—

" The duty on spelter should be removed at the earliest opportunity. It will result in a reduction of between 3 and 4 per cent. in the cost of galvanised sheet and of about 3 per cent. in the cost of galvanised hardware. In addition it will benefit a number of small manufacturers of brass and other alloys, and it might assist the establishment of brass manufacture on a large scale. The loss of revenue occasioned by the removal of the duty would be about Rs.5 lakhs at the present rate of consumption, or if allowance be made for the larger consumption of spelter at Jamshedpur when the sheet mills reach their full output, Rs.6 lakhs. We have considered whether the duty should be retained on those imports where the zinc has been given a special shape, such as zinc sheet, rolled zinc, boiler tiles and zinc tubes and tubing, about which no special representation has been made, but we do not consider this course is advisable. The imports of this sort are apparently small in quantity, the revenue derived from the retention of the duty would be trifling, and difficulties might arise in the Customs when it was necessary to discriminate between zinc which was dutiable and zinc which was not. For this reason we propose that all kinds of zinc, which are at present subject to duty under entry No. 98 in the statutory Tariff Schedule, should be admitted free."

With regard to the second application, the Board were unable to recommend the imposition of a protective duty on imported galvanised hardware.

Decision of the Government of India. — This was made known in resolution No. 267-T (2) of 3rd July, 1926, as follows :—

" The report of the Tariff Board on applications for the removal of the duty on spelter and for the enhancement of the duty on imported galvanised hardware was published for general information on the 2nd July.

The Board recommend the removal of the duty on spelter, in accordance with the general principle enunciated in paragraph 113 of the Fiscal Commission's report that raw materials required for Indian industries should ordinarily be admitted free of duty. The principal Indian industries for which spelter is a raw material are :—

(1) the manufacture of brass and other alloys; (2) the manufacture of galvanised sheet; and (3) the manufacture of galvanised hardware.

The manufacture of galvanised sheet is already protected, and the Board have pointed out that there are special reasons in such cases for removing the duties on materials in order that the protective duties may be kept as low as possible.

The Government of India are of opinion that recommendations for the removal of duties, based on general principles rather than

on the immediate need of a particular industry, should ordinarily be considered at the time of the annual Budget. In this case also, the statutory inquiry into the steel industry, which is now in progress, embraces the existing protective duty on galvanised sheet. The Government of India, therefore, have decided that the present recommendation of the Tariff Board that the import duty on spelter should be removed, should be considered at the time of the next Budget and in connection with the further protection of the steel industry, at the Delhi Session of the Legislature, 1927.

The Board are unable to recommend the imposition of a protective duty on imported galvanised hardware, and the Government of India have accepted this finding."

CHAPTER IV.

AN ACCOUNT OF THE FURTHER DEVELOPMENT OF PURCHASES OF GOVERNMENT STORES IN INDIA BY THE INDIAN STORES DEPARTMENT AND OTHER DEPARTMENTS OF THE GOVERNMENT OF INDIA WITH SPECIAL REFERENCE TO THE BEARING OF THIS TENDENCY ON THE POSITION OF BRITISH MANUFACTURERS.

During the past six years in previous reports I have traced with some care the gradual steps taken by the Government of India to give effect to their avowed policy of developing the purchase of stores as far as possible in India, of granting a preference to articles manufactured or partly manufactured in the country, and of utilising the activities of the recently created Indian Stores Department as a lever to stimulate the local production of such articles.

Before this report is published it is probable that the details with regard to the institution of a system of rupee purchase in India will have been made known. As the matter is still under consideration by the Government of India, it is not possible at the present time to do more than state that the Departments of the Government of India concerned, namely, the Indian Stores Department, the Railway Department and the Army Department are now engaged in revising the Stores Rules and in working out the precise arrangements required for the adoption of a system of rupee purchase to the utmost possible extent. It is expected that the revised Stores Rules will be promulgated with the least possible delay, and that adequate time will be given for suppliers to modify their organisation before the system comes into force. Once the rupee tender system is adopted, it will be practically essential that each manufacturer who is interested in the stores purchased by the Indian Stores Department, the Railway Board and State Railways, and also by certain sections of the Army Department, should have an active organisation in India to deal with the calls for tender, and to keep in touch with the purchasing departments concerned.

I propose now to deal with the development of the Indian Stores Department in 1926-27, to consider the purchases of railway material during the last year in respect of which details are available, and generally to bring the record up to date so that British manufacturers may realise the far-reaching changes which are taking place, and which call for increased efforts and greater vigilance on their part if they wish to maintain that predominant share in the supply of Government stores which has always been theirs in the past.

THE INDIAN STORES DEPARTMENT IN 1926-27.

NOTE.—*I am indebted to Mr. J. S. Pitkeathly, C.I.E., C.V.O., C.B.E., Chief Controller of Stores, for the information which follows and for valuable co-operation and help which has always*

been most willingly given. His lucid reports on the administration of the Indian Stores Department may be seen at the Department of Overseas Trade, 35, Old Queen Street, London, S.W.1., and should be read by all firms interested in the supply of stores to Government.

The Chief Controller reviews the progress made during the year 1926-27 in the following terms :—

" The last report issued on the administration of the Indian Stores Department brought the record of the operations of the Department up to the end of March, 1926. That report exhibited continuous progress of the activities of the Department in the various fields wherein it has been set to operate. The present report continues that record up to the end of the financial year 1926-27. This latter record is one of still further and marked progress in all directions. The clientèle of the Department, both in its purchase and inspection branches, not only received an addition of strength, but also employed the Department to a larger extent than in the previous year. As a result, there was a substantial increase in the volume of the business actually transacted by the Department.

Activities of the Purchase Branch. — The value of the purchases effected by it rose from Rs.2,66,68,000 to Rs.3, 98,82,000 —an increase of 49·5 per cent. In the case of textile goods these purchases were, as in previous years, confined almost wholly to the products of India, the proportionate value of Indian products purchased having amounted to nearly 97 per cent. of the total. The bulk of the purchases of engineering and allied stores was, as formerly, represented by articles of foreign manufacture. This must continue to be so until considerable progress has been made in the development of the engineering industry of India, and until the Indian Stores Department is utilised to a larger extent than at present for the purchase of engineering material which is manufactured in India.

Activities of the Inspection Branch (general).—The expansion of the purchasing operations of the Department naturally reacted on the volume of the work carried out by the Inspection Branch; but the operations of that Branch were further, and to a larger extent, broadened by the larger resort to the Department of authorities who effected their own purchases.

Activities of the Metallurgical Inspectorate and the Government Test House. — The tonnage of materials inspected at the Metallurgical Inspectorate at Jamshedpur increased by 14·9 per cent., having risen from 293,053 tons to 336,820 tons. There was also a substantial increase in the number of tests and analyses carried out by that organisation and the Government Test House at Calcutta, both of which institutions undertook in addition a good deal of research work in various directions which will prove

of substantial practical benefit to the industry and commerce of the country.

Activities of the Provincial Inspectorates.— The work entrusted to the Inspection Circles also was considerably larger than in the previous year, more noticeably in the Calcutta and the Bombay Inspection Circles, in which the increase of business amounted to 29·7 per cent. and 164·8 per cent. respectively.

Specification and Advisory Work. — Much useful work was done in revising and bringing up to date a number of the existing specifications, in framing new specifications, and in affording technical advice in connection with certain important schemes involving the expenditure of several lakhs of rupees. In addition, progress was made in extending the survey of the indigenuous sources of supply, and every opportunity that presented itself was taken to indicate to suppliers directions and the manner in which the quality of their products might be improved.

Financial Position. — The accounts of the receipts of the Department, and of the expenditure debited directly to its budget grant, exhibit a satisfactory improvement, the year having ended with a debit balance of about one-third the amount of the corresponding balance of the previous year."

Work Done.

"**Progress in extending the field of operations.**— The progress made in the year 1925-26 in extending the Department's field of operations was more than maintained during the year 1926-27. A number of authorities, comprising not only Departments of the State, both Central and Provincial, but also public bodies, such as Company Railways and Municipalities, Indian States and a certain number of private firms, who had not previously resorted to the Department for the purchase or inspection, or both, of stores required for their use, entrusted it with a not inappreciable volume of such business; while many of the previous clients of the Department utilised its services to a greater extent than hitherto.

Inclusion of the Stores Department in the major local Governments' arrangements for Stores Purchase. — A new development during the year, which may well prove to be of considerable practical importance to the Department, was the promulgation by some of the major local Governments of definite rules to regulate the purchase of stores required for the use of the Departments and officers subject to their authority. Most of these rules provide for the utilisation in some form or other of the services of the Indian Stores Department. Thus, the Government of the Central Provinces have constituted the Indian Stores Department as one of the agencies which should be utilised by Departments and officers under their control for the purchase of plant

and machinery and component parts from branches in India of manufacturing firms. The Governments of Bengal and the Punjab have gone further, having appointed the Indian Stores Department to be the sole purchasing agency for such stores. The Government of Bombay have prescribed that all purchases in India above Rs.500 in value, whether of indigenous articles or of imported stores, except plant and machinery and component parts, shall be made through the agency of the Indian Stores Department, unless indenting officers can show that they can themselves purchase the materials more cheaply or (in cases of urgency) more expeditiously. They have also issued directions that all indents on the India Store Department, London, made by their Departments and officers should be forwarded through the Indian Stores Department, and further that the agency of the latter should, as far as possible, be utilised for the testing and inspection of all articles purchased in India which are required to conform to tests or specifications laid down by competent authority. These prescriptions imply a recognition in varying degrees by these Governments of the facilities which the Department is in a position to offer, and this recognition is rendered all the more gratifying by reason of the fact that these Governments are completely autonomous in this matter, and are under no sort of obligation to utilise the services of the Department.

Work of the Purchase Branch. — The total number of indents and items dealt with rose from 6,401 and 39,485 respectively, to 8,561 and 56,058 as detailed below :—

	No. of Indents.		No. of Items.	
	1925–26	1926–27	1925–26	1926–27
Headquarters	3,016	3,925	16,128	23,193
Calcutta	1,740	2,334	12,051	16,916
Bombay	1,157	1,079	7,645	6,989
Karachi	488	1,213	3,661	8,960
	6,401	8,561	39,485	56,058

The total value of the purchases made during the year increased from Rs.2,66,67,933 to Rs.3,98,82,245. This increase was distributed over both textile goods and engineering and allied stores, but it was more marked in the case of the latter.

Purchase of Textile Stores. — The textile purchases, amounting to Rs.1,62,86,293 in value, exceeded those of the preceding year by 37 per cent. A portion of this increase was due to the late receipt of certain important indents during 1925-26, but even if these particular purchases were excluded from the comparison there would remain a satisfactory increase of about 11 per cent. in the value of this class of business.

The figure of Rs.1,62,86,293 approximates closely to the highest recorded since the constitution of the Department, and this fact

gains in importance when it is remembered that since the record figure of Rs.1,64,78,305 was reached in the year 1922-23 there has been both a diminution of the requirements of the Army in India, the largest consumer of textile goods, and also a general fall in prices.

Following previous practice, practically the whole of the textile goods bought were of Indian origin and manufacture, the proportion of goods of overseas manufacture purchased in the market amounting to 3·3 per cent. only.

Purchase of engineering and miscellaneous stores.— The value of the purchases of engineering and allied stores amounted to Rs.2,35,95,952, representing an increase of about 60 per cent. over the figure of the preceding year. The Central Departments increased their purchases through the Indian Stores Department by 45 per cent., the Railway Administrations (State and Company worked as well as those worked by Indian States) by 82 per cent., and the provincial Governments by 70 per cent. There was a considerable decline in the volume of the purchases made on behalf of Indian States, but this was counterbalanced by a corresponding increase in the purchases made for public bodies.

The bulk of these stores continued, for the reasons explained in the previous report, to be of foreign origin.

Details of important purchases.—The following were the more important purchases made during the year under report :—

	TEXTILES.	Amount. Rs.
1.	Tents and components	33,00,000
2.	Blankets, woollen	22,62,000
3.	Drills, khaki and drab dark	17,09,000
4.	Cotton waste (for cleaning and axle box packing)	7,99,000
5.	Socks and stockings, woollen	6,03,000
6.	Paulins	5,56,000
7.	Putties, woollen and cotton	5,52,000
8.	Drills, white and coloured	5,46,000
9.	Serge drab mixture and serge lining	3,67,000
10.	Waistcoats, cardigan jackets and jerseys	3,26,000
11.	Yarn, cotton and woollen	2,87,000
12.	Durries, cotton and woollen	2,77,000
13.	Pagri cloth, khaki and other colours	2,59,000
14.	Rugs, horse	2,55,000
15.	Hessians and gunnies	2,41,000
16.	Blanketing cloth for overcoats	2,36,000
17.	Great coat cloth and coats	2,28,000
18.	Cordages and ropes	2,10,000
19.	Cotton white, sleeve lining	2,09,000
20.	Bags, waterproof	1,95,000
21.	Melton cloths	1,91,000
22.	Bags, postal	1,66,000
23.	Towelling cloth	1,29,000
24.	Dosuti cloth	1,16,000
25.	Twines, jute, hemp, cotton, etc.	1,16,000
26.	Twill, cotton	1,15,000

		Amount Rs.
27.	Sheets, barrack	1,06,000
28.	Serge, lining	96,000
29.	Longcloth	92,000
30.	Sheets, hospital	90,000
31.	Cotton wool, absorbent (surgical)	87,000
32.	Cambric, mulmul and muslin	86,000
33.	Cotton, grey, blue, etc.	84,000
34.	Cases, mattress, pillow, etc.	73,000
35.	Flannelette, mark III.	67,000
36.	Gloves, worsted	59,000
37.	Cloth, linen, paramatta, alpaca, etc.	57,000
38.	Tape, cotton	52,000
39.	Kullahs	51,000
	ENGINEERING AND MISCELLANEOUS.	
40.	Electrical power generating plant and equipment	13,42,000
41.	Cement	10,85,000
42.	Oil, fuel	10,18,000
43.	Dragline excavators	9,41,000
44.	Road rollers	8,64,000
45.	Bitumen and asphaltum	8,39,000
46.	Rolled steel beams and joists, etc.	8,23,000
47.	Mild steel sections	7,02,000
48.	Pipes, C.I., and fittings, etc.	6,92,000
49.	Oil, axle	6,10,000
50.	Oil, kerosene	5,95,000
51.	Sheets, galvanised corrugated	5,84,000
52.	Rails and permanent-way materials	5,12,000
53.	Tyres and tubes, rubber	4,50,000
54.	Structural steel work	4,80,000
55.	Barges, steel	4,29,000
56.	Paints	4,01,000
57.	Oils, lubricating, miscellaneous	3,79,000
58.	Electrically driven haulage equipment for Uhl River	2,56,000
59.	Locomotives, electric	1,98,000
60.	Tubes, steel	1,87,000
61.	Oil, cylinder, ordinary and superheat	1,80,000
62.	Tunnel construction plant	1,77,000
63.	Wagons, tipping and trucks	1,71,000
64.	Cables and wires, electric	1,33,000
65.	Oil, linseed, raw and boiled	1,32,000
66.	Creosote	1,23,000
67.	Tractors and trailers	1,23,000
68.	Stone breakers	1,19,000
69.	Workshop machinery	1,10,000
70.	Locomotives, steam	1,06,000
71.	Weaving machinery	1,00,000
72.	Merryweather valiant pumps	93,000
73.	Cultivating machinery	88,000
74.	Fans, lamps and fittings, electric	85,000
75.	Air compressors	80,000
76.	Wire, baling	75,000
77.	Girders, bridge	71,000
78.	Petrol	70,000
79.	Pumping plant	69,000
80.	Belting of sorts (hair, leather, etc.)	67,000
81.	Timber for packing cases	66,000
82.	Timber (teakwood, etc.)	57,000

Encouragement of Indian Industries and Local Purchases.

Registration of firms at the Headquarters Office.—Investigations continued to be made during the year into the potentialities of Indian sources of supply, and, as one result of these enquiries an addition of 278 was made to the list of " approved contractors " to the Department and to the lists of firms maintained under the rules for the supply of articles for the public service. Applications for registration which had been received from 109 other firms were rejected for the reason that these firms did not entirely satisfy the necessary conditions for enrolment on the lists; and the names of three firms who had previously been enrolled were removed from the lists, as it was found that they could not safely be entrusted with the efficient carrying out of contracts placed with them. The table on page 106 indicates the total number of firms registered up to the end of the year, distributed amongst the various provinces and classified according to the different descriptions of stores dealt with by them.

	Bengal.	Bombay Presy.		Madras.	Punjab.	U.P.	Delhi.	Burma.	B. & O.	C.P.	Indian States.	TOTAL.
		Bombay.	Karachi.									
Railway materials	59	39	4	9	6	4	6	5	5	—	1	138
Hardware	78	54	14	12	12	23	12	9	3	—	6	223
Implements and tools	51	41	11	15	12	5	10	10	3	1	2	161
Metals	86	48	12	13	11	9	11	10	4	1	1	206
Mechanical equipment	147	126	12	29	19	12	17	25	3	—	5	395
Electrical equipment	95	59	14	23	15	16	15	11	3	—	3	254
Oils	39	33	5	10	6	6	3	8	—	—	4	114
Paints, colours, enamels and varnishes ...	49	40	10	11	5	2	1	6	1	—	2	127
Chemicals (excluding medicines and drugs)	37	16	3	4	2	4	2	3	—	—	1	72
Textiles—												
(*a*) Cotton materials	68	68	3	6	28	19	10	5	—	1	5	213
(*b*) Woollen materials	24	17	1	4	9	12	1	2	1	—	4	75
(*c*) Jute, flax and hemp materials ...	54	23	4	2	10	6	—	3	1	1	—	104
(*d*) Silk	—	—	—	—	—	1	—	—	—	—	—	1
Leather goods	16	9	—	2	5	10	—	3	—	—	1	46
Structural engineering	41	16	3	6	2	4	3	7	2	—	—	84
Miscellaneous stores	154	94	19	23	37	24	22	17	3	6	7	406
Medical, surgical and scientific stores and equipment (excluding medicines, chemicals and drugs)	10	3	—	1	1	2	—	—	—	—	—	17
Wireless stores	1	1	—	—	—	—	—	1	—	—	—	3
Mathematical, drawing and surveying instruments and equipment	8	8	—	—	—	—	1	1	—	—	—	18
Total	1,017	695	115	170	180	159	114	126	29	10	42	2,657
Deduct overlapping figures for firms appearing against more than one item	581	372	64	102	65	43	57	66	21	3	14	1,388
Net Total	436	323	51	68	115	116	57	60	8	7	28	1,269

Registration of firms at local Purchase Circles. — In addition to the firms mentioned in the preceding paragraph, 180 firms were registered for small orders on the lists maintained by the subordinate purchasing agencies of the Department. Of these 50 are located in Calcutta, 103 in Bombay, 16 in Karachi and 11 in Madras.

Advice to Manufacturers. — The Department continued to advise and instruct manufacturers in India whenever opportunity offered in the matter of the improvement of their products, and also of their organisation generally. Whenever it was found that a manufacturer was able to produce an article which could be purchased in India in conformity with the Stores Rules, the fact was brought to the notice of consumers.

List of stores indented for by Government Departments on the India Store Department, London. — In para. 66 of the previous year's report it was pointed out that there had been a very small demand for the bi-monthly lists of stores indented for by Government Departments on the India Store Department, London. There was no improvement in the sales of these publications during 1926-27; but, as certain industrial and commercial bodies urged either that the publication of these lists should be continued, or that some other means should be adopted for keeping them informed of the nature and volume of stores demanded from abroad, it has been decided to continue the issue of the lists for the present.

Scrutiny of home indents.—Much valuable work was done during the year in connection with the scrutiny of indents placed by the consuming Departments on the India Store Department, London. The question of the treatment of indents from the various railway administrations was fully examined in consultation with the Railway Board, and a satisfactory procedure was devised which is already effecting a considerable increase in the value of purchases made in India. During the year copies of 1,228 indents on the India Store Department, London, of an estimated value of Rs.8,81,53,278, were received for scrutiny, as compared with 1,226 indents of an estimated value of Rs.7,86,82,867 during the year 1925-26. The Department challenged items aggregating Rs.76,57,000 in value, as against Rs.41,75,000 during the preceding year, with the result that purchases to the value of Rs.6,44,000 (against Rs.4,88,000 in 1925-26) were diverted to the Indian markets, and assurances were received from indentors that items, the present requirements in respect of which aggregate Rs.36,36,000 in value at current rates, would, if required in future, be purchased in India, provided that the purchase could be effected in conformity with the provisions of the Stores Purchase Rules."

PURCHASE OF RAILWAY MATERIALS.

Each of the Indian Railways, whether operated by the State or by a Company, maintains a Stores Controller at its head-quarters in India, who purchases all stores bought locally and forwards indents for articles which must be imported. In the case of the State-operated railways, these indents are despatched to the India Stores Department, London, and in the case of Company-worked lines the indents are made on the head office of the Company in London, which effects the purchases in consultation with the consulting engineers.

Of recent years it has become the practice of the Railway Board in India to call for tenders for any large number of locomotives or wagons required for use on State-worked lines simultaneously in London and in India, and the order is placed either by the Director-General of Stores, London, or by the Railway Board in Delhi-Simla, according to whether the foreign or the local tender is accepted.

The inauguration of the system of rupee tender will mean that, in the case of State-worked lines, tenders for all supplies will be called for in India and in rupees, although, in certain cases, tenders will be called for simultaneously by the Director-General of Stores, London. The decision as to the placing of the contract will, however, in every case, be made in India. It is too early to make a definite statement as to the exact procedure to be adopted, as it has not yet been definitely decided to what extent the Railway Board will utilise the services of the Indian Stores Department. It is probable that the great bulk of the purchases will be made, as heretofore, by the Stores Controllers of the several lines, and large contracts for the grouped requirements of locomotives or other rolling stock and important bridgework will be placed by the Railway Board.

Value of Railway Materials Purchased in 1925-26.—The last Report on Indian Railways for 1925-26 deals exhaustively with the subject of stores purchases. The total value of materials purchased by Indian Railways in 1925-26 was 23·30 crores, as compared with 20·83 crores in 1924-25, excluding coal, stone, bricks, lime, etc., and other locally purchased stores. The purchases in India and from abroad are shown in the subjoined statement, from which it will be seen that the principal increases were 1·04 crores for rolling stock, and 84 lakhs for tools, stores and permanent way. The value of materials purchased in India shows an increase, particularly in the case of rolling stock, the value of which advanced from 37 lakhs to 98 lakhs. The report states that this figure does not include expenditure on the building of coaching stock bodies, all of which is undertaken in railway workshops, the expenditure on spare parts and fittings for rolling stocks also manufactured in railway workshops, and the expenditure on wagon

building in the workshops of the Bombay, Baroda and Central India Railway, the Bengal and North Western Railway and the Burma Railways. Nor is the expenditure on structural and other engineering works completed *in situ* taken into account. It is intended in future years to embody this information in the Annual Report. During the year the Railways bought from the Tata Iron and Steel Company Ltd., 109,850 tons of steel rails and 4,071 tons of fishplates at a cost of Rs.1,44,83,464.

VALUE OF IMPORTED MATERIAL.

Headings.	Purchased direct.	Purchased through Agents in India.	Total imported materials.	Value of indigenous materials.	Total purchases, 1925-26.	Total purchases, 1924-25.
	Rs. crores.	Rs. crores.	Rs. crores.	Rs. crores.	Rs. crores.	Rs. corres.
Rolling stock ...	5·52	0·66	6·18	0·98	7·16	6·12
Tools and stores ...	0·81	2·73	3·54	3·22	6·76	6·36
Permanent way ...	1·29	0·32	1·61	4·28	5·89	5·45
Electric plant ...	0·72	0·54	1·26	0·01	1·27	1·11
Building and station materials and fencing ...	0·23	0·52	0·75	0·17	0·92	0·61
Bridge work ...	0·43	0·07	0·50	0·04	0·54	0·51
Workshop machinery	0·45	0·15	0·60	...	0·60	0·45
Engineer's plant ...	0·04	0·09	0·13	0·03	0·16	0·22
Total ...	9·49	5·08	14·57	8·73	23·30	20·83

The next table, also abstracted from the Report on Indian Railways, gives the value, in thousands of rupees, of stores purchased by each of the principal railways during the year 1925-26.

Railway.	Value of stores imported direct.	Value of imported stores purchased in India.	Value of stores of Indian manufacture or of indigenous origin.
	Rs. (1,000)	Rs. (1,000)	Rs. (1,000)
Bengal-Nagpur	1,21,49	57,04	39,39
Bombay, Baroda and Central India	1,18,16	50,11	1,39,00
Eastern Bengal	24,19	29,21	92,31
East Indian	1,73,92	1,20,57	2,06,08
Great Indian Peninsula	1,82,07	87,99	69,53
Madras and Southern Mahratta ...	93,85	21,65	47,22
North Western	92,34	86,85	1,67,34
South Indian	80,05	31,04	42,08
Assam-Bengal	6,08	6,38	12,23
Bengal and North Western ...	15,41	7,15	12,82
Burma	40,18	8,52	41,23
Rohilkund and Kumaon ...	91	2,08	3,08
Total expenditure	9,48,65	5,08,59	8,72,31

The broad question of the standardisation of railway equipment of all kinds has received very careful consideration by expert committees of the Railway Board during the past three years. I cannot do better than quote the remarks of the Railway Board in this connection.

Standardisation of Locomotives. — " As the result of the reference of the recommendations on their 1924 Report to the Consulting Engineers, the Locomotive Standards Committee made certain modifications in the proposals for the adoption of new types of locomotives. The new types were finally accepted by the Railway Board for trial as standards for general adoption, and it has been decided to order the following engines of the new types for trial on different railways :—

	4–6–2 type.			2–8–2 type.	
	Branch.	Light.	Heavy.	Light.	Heavy.
Broad Gauge ...	6	28	12	13	14
Metre Gauge ...	—	4	5	11	—

During the manufacture of these locomotives the consulting engineers will supervise the preparation of accurate standard drawings of all details assisted by a member of the Locomotive Standards Committee.

The standardisation of narrow gauge (2ft. 6 in. and 2 ft.) locomotives was referred to this committee during the year, and on receipt of their proposals they were referred to the consulting engineers for their opinion on the types recommended."

These locomotives were ordered in the United Kingdom last year, and are now in service on the various lines.

Standardisation of Rolling Stock. — " The technical committee appointed in November, 1924, by the Railway Board to revise the Indian Railway Conference Association designs of coaching underframes and wagon stock and to prepare designs of any other types for which there might be a demand, is known as the Carriage and Wagon Standards Committee. The revision was necessitated owing to the fact that in some instances existing designs had not been entirely satisfactory in service, also because it was necessary to redesign all underframes to take the automatic centre buffer coupler. The report of the Committee, which was received in September, 1925, was forwarded to the Locomotive and Carriage and Wagon Superintendents' Committee of the Indian Railway Conference Association and to the consulting engineers to the India Office for examination, and the latter were asked to prepare general drawings embodying the recommendations made. These recommendations included one new design for broad and

metre gauge carriage underframes, thirteen instead of sixteen types of broad gauge, thirteen instead of twenty types of metre gauge wagons, and two new broad and one metre gauge types of special wagons. The revised drawings for the broad gauge types have since been received and examined by the Carriage and Wagon Standards Committee, and their recommendations with certain modifications have been approved by the Railway Board. Instructions have issued to the High Commissioner for India to the effect that six sample vehicles and underframes of each type are to be constructed, and these will be put into service to ascertain what modifications, if any, are required before the revised designs are finally approved by the Railway Board. The Carriage and Wagon Standards Committee is intended to be a permanent body. In order to prevent stagnation and ensure progressive improvements in and additions to designs of coaching and goods stock the Committee will be convened as required to report on and advise the Railway Board on suggestions made from time to time by the different Administrations."

Standardisation of Permanent Way, Bridgework, Signalling and Interlocking.—" The advisability of standardising the main essentials of permanent way, bridgework, signalling and interlocking has been recognised for some time past, and as the result of their increased responsibilities in regard to standard (5 ft. 6 in.) gauge railways the Railway Board came to the conclusion that both their own requirements and those of the important Company-managed Indian Railways would best be met by the formation of a Standing Committee of Chief Engineers of Class I Railways. It was decided that the Standing Committee should have three Sub-Committees, functioning under it, which would deal in detail with (1) permanent way, (2) bridgework, and (3) signalling and interlocking.

This Committee, in addition to controlling the work of the proposed standardisation, Sub-Committees would control the work of the sleeper pool committee, and also form a body of experts to whom important matters could be referred for advice or opinion. In so far as the work of the standardisation Sub-Committees was concerned, the duties of the Standing Committee would be (1) to act as a connecting link between the former and the Railway Board in the matter of settling the various matters to be included in the agenda for the meetings of the Sub-Committees, (2) to receive and review the reports submitted by the latter, and to make recommendations thereon for the consideration and orders of the Railway Board, and (3) generally to ensure that the work of standardisation was carried out on a continuous and progressive basis.

The Railway Board's scheme met with a ready response from the railway administrations concerned, who agreed to place the

services of their chief engineers at the disposal of the Railway Board, when required. The Standing Committee of Chief Engineers of Class I Railways was accordingly constituted, and held its first annual meeting at Simla from the 6th to the 11th July, 1925. Among other matters dealt with at that meeting, the Fundamental Rules for the constitution and procedure of the Standing Committee, which had already been drafted by a special Sub-Committee, were considered and adopted; and the first Reports submitted by the Track and Bridge Sub-Committees were received and considered.

The Track Sub-Committee was convened for the first time on the 15th January, 1925, and remained in session till the 7th March, 1925. At that meeting they dealt with two important subjects, namely, the standardisation of points and crossings for 5 ft. 6 in. gauge railways, and the revision of the standard dimensions of timber sleepers for the 5 ft. 6 in. metre and 2 ft. 6 in. gauges. Their report on these subjects was, as stated above, submitted to and considered by the Standing Committee of Chief Engineers in July, 1925, and the latter referred back to the Sub-Committee the proposed standard designs of points and crossings for further consideration and modification. This Sub-Committee has also had referred to them, for necessary action, the standardisation of cast iron and steel sleepers for 5 ft. 6 in. gauge railways, as well as a number of other questions of varying importance, ranging from the suitability of the design of the new British standard section fishplates to the merits of a number of patent devices. These matters were under consideration during the second meeting of the Sub-Committee which commenced on 8th February, 1926.

The Bridge Sub-Committee met on 1st April, 1925, and remained in session till September of that year. They submitted for consideration by the Standing Committee of Chief Engineers, at their meeting in July, a First Interim Report, embodying recommendations regarding the revision of the general formula for " Impact " in the case of girder bridges on 5 ft. 6 in. gauge railways, which were generally approved by the Standing Committee. They later submitted a Second Interim Report, containing recommendations regarding the revision of the Bridge Rules for 5 ft. 6 in. gauge railways. Proposed revised Bridge Rules, based on these two Reports of the Bridge Sub-Committee, are now under consideration by the Railway Board, under whose orders they have been circulated to all Railway Administrations, Government Inspectors of Railways, and the Consulting Engineers to the Secretary of State and the High Commissioner for India, for examination and remarks. During their first session, the Bridge Sub-Committee also considered the question of the co-ordination of weight of rail with locomotive and wagon axle-loads, for both unrestricted and restricted speeds, which had been referred to them by the Standing Committee of Chief Engineers at their meeting in

July, and submitted a very comprehensive and detailed report on "Track Stresses," which will be of great value in the future, whenever questions regarding co-ordination of weight of rail and axle-load arise. This Sub-Committee are now carrying out deflection tests on metre gauge girders, with a view to formulating a revised Impact Formula and revised Bridge Rules for metre gauge railways."

State Railway Workshops Committee. — The Railway Board make the following comments in their report for 1925-26 :—

"A number of schemes aiming at improvement in the capacity of the workshops of the North-Western Oudhand, Rohilkhand and Eastern Bengal Railways in regard to repairs to locomotives and rolling-stock had been proposed, and in some cases had been put in hand when the transfer to State management in 1925 of the East Indian and the Great Indian Peninsula Railways gave an opportunity of effecting economies and improving efficiency by a definite co-ordination of the work of the State Railway Workshops. At the same time improvements in workshop methods in Great Britain and elsewhere made it advisable that the whole of the workshop organisation on these railways should be overhauled and modernised. The Railway Board, therefore, appointed a committee, consisting of Sir Vincent Raven, K.B.E., formerly Chief Mechanical Engineer of the North-Eastern Railway and President of the Institution of Mechanical Engineers, as Chairman, and Mr. J. M. D. Wrench, Chief Mechanical Engineer, Great Indian Peninsula Railway, lately officiating Director of Mechanical Engineering, Railway Board, as a member. Mr. K. C. Srinivasan, an officer of the Accounts Department, with special knowledge of workshop accounts, was attached to the Committee as Financial Assistant. Mr. R. McChesney, Technical Assistant to the Chief Mechanical Engineer, North-Western Railway, was appointed Secretary to the Committee.

The Committee was instructed to enquire into and report on :—

(*a*) The capacity or otherwise of the existing workshops of State Railways to deal economically and expeditiously with the maintenance of rolling-stock at the present time.

(*b*) The necessity or otherwise of enlarging and extending the existing workshops, man-power and machinery with a view to the maintenance of an increased quantity of rolling-stock.

(*c*) The advisability of concentrating the manufacture of spare parts in one or more of the larger workshops and to relieve the repair shops of all such manufacturing processes.

(*d*) The alternative of establishing an entirely independent workshop wherein manufacturing work could be standardised and, if necessary, such maintenance work performed as other workshops may be unable to undertake consideration to be given to the question of the site or locality most likely to lead to economic manufacturing costs and expeditious output.

(*e*) The question of increased utilisation of Indian products in railway workshops.

(*f*) Whether the manufacture of spare parts is done at rates which show favourable comparison with the rates at which they could be obtained from outside agencies."

The report of the Committee was signed in April, 1926, and published in June of that year. A copy is available at the Department of Overseas Trade for perusal by interested parties. Mr. J. M. D. Wrench, a member of the committee, has been placed on special duty by the Railway Board in order to supervise the carrying into practice of those of the recommendations on which action is being taken by the Board. Several important schemes of rearrangement and extension of Railway Workshops are in progress which will involve the purchase of considerable quantities of machine tools, etc. British representatives of interested firms have for some time been in close touch with the Board, who recently sent an officer to London to supervise the purchase of some of the machinery required.

Automatic Centre Buffer Coupler. — The Railway Report states :—

" As a result of further investigations of the problem of converting rolling-stock for use with the automatic centre buffer coupler, it was found to be necessary to obtain a more accurate knowledge of both the expenditure and the mechanical alterations involved in converting the large number of different types of wagons and vehicles in use. It had been recognised that in some cases fundamental alterations in the underframes would be necessary, but the problem owing to the wide differences in design was found to be somewhat more extensive than had been hoped. It was considered advisable to ask the consulting engineers to prepare detailed drawings and estimates of the alterations required to be carried out to each of the various types of 5 ft. 6 in. gauge stock now in use before proceeding to establish conversion depots for fitting the automatic centre buffer coupler to the existing stock. The grant for the work voted by the Assembly was accordingly not utilised during the year.

In the meantime, railways were instructed to continue to experiment with various types of automatic couplers and transition devices. A senior mechanical engineer was placed on special duty to co-ordinate and collate the results of trials which were still proceeding at the close of the year."

No definite decision has yet been reached (June, 1927) with regard to the adoption of automatic couplers.

Supply of rails and structural steel from indigenous sources — " The year under review was the 6th year of the Railway Board's seven year contract with Messrs. The Tata Iron and

Steel Company for the supply of rails and fishplates to the State-worked Railways and the last year of the Company-worked Railway contracts. The total demands of the State-worked Railways to be supplied during the year 1925-26 amounted to 52,206 tons, and orders for the entire quantity were placed with the Steel Company. The demands of the Company-worked Railways for which orders were placed with the company amounted to 69,535 tons, orders for the balance having been placed abroad. Of these demands the Steel Company were able to supply 47,694 tons to the State-worked Railways and 66,227 tons to the Company-worked railways, leaving a balance of 4,820 tons, which was carried forward to the year 1926-27.

The pre-existing arrangement with the Company for supply of steel, other than rails, to State-worked railways under which the price per ton was fixed every quarter at an average c.i.f. landed price *plus* duty less Rs.7/8/- per ton of imported steel, was allowed to continue to 31st December, 1925. It was settled in communication with the Company that, thereafter, the State-worked railways should call for tenders as and when necessary in the usual way, opportunity being given of course to the Steel Company to tender in rupees in India."

Electric Headlights for Locomotives.—" Electric headlights on locomotives have been in use on most of the railways to some extent for a number of years and intial difficulties connected with their use have been largely overcome.

The additional security which has been obtained in night running has been almost universally recognised, and the Railway Board has finally decided to make their use universal. They have, therefore, issued orders that as a safety measure on State-worked railways electric headlights shall be provided by all Railway Administrations on all locomotives working mail, passenger, or mixed trains, whether on double or single line sections by 31st March, 1928. This decision, however, does not extend to branch lines where trains are infrequent and run at slow speeds.

The total number of mail, passenger and mixed engines belonging to Class I Railways equipped with electric headlights, at the end of the year under review was 716 out of an average number in daily use on such services of 2,200."

Almost all the headlights so far fitted to locomotives in India are of American origin, and it has hitherto been difficult to interest any British firm in the production of this article. One enterprising British firm, however, has recently produced a most suitable headlight and has supplied several trial sets to various railways in India.

The position of British suppliers of Railway Plant.—In my last Report for 1924-25, pages 102-103, I outlined the position in the following terms :—

" I have dealt at some length in this and in previous reports with the policy of the Government of India of purchasing more and more stores in India and less and less material in London. So far this policy has not affected railway purchases of imported articles to any considerable extent. Most of the items purchased, such as rolling stock, bridgework, permanent way materials, special tools, etc., are of such a complex nature and require such efficient inspection at each stage of manufacture that it is much more convenient and satisfactory to purchase in London than in India. Moreover, it is most desirable that the Indian railways should be in close touch with the most modern railway practice and improvements in material, and this object can only be satisfactorily attained in London through the medium of consulting engineers. It is likely, therefore, that for some time the bulk of the purchases of imported railway material will continue to be made in London. At the same time, if as would appear to be likely, the rupee tender in India is insisted upon in the case of Government purchases in the course of the next few years, the centre of purchase will be definitely shifted from London to Delhi-Simla, and the position of British suppliers of railway plant will be seriously threatened unless, in the meantime, steps have been taken to build up a technical and highly-efficient organisation in India, which is competent to draw up tenders and advise the railways on all technical points connected with the plant supplied.

Most of the principal suppliers of rolling stock, etc., have hitherto contented themselves with maintaining touch with the India Stores Department, London, and the London head offices and consulting engineers of the company-operated lines. They have, quite naturally, not considered it necessary to keep in touch with the Railway Board and indenting officers in India, as the orders have been forthcoming in London, and they hesitated before incurring the additional expense of an organisation in India. The time, however, has come when an organization in India is essential, if our position is to be safeguarded when the changes outlined above have materialised. Foreign competitors, both Continental and American, are already in the field, and unless British firms follow suit, they will be seriously handicapped in the future. A few of the locomotive and wagon builders are already represented in India, and several makers of permanent way materials and machine tools have an active organisation on the spot. It is to be hoped that the remaining British firms of suppliers and railway contractors will lose no time in reaching a decision on this point. I feel sure that if they would, as a preliminary measure, send out a director or other senior officer to survey the position and consult with the members of the Railway Board and the leading railway officials throughout the country, they would quickly realise the dangers of the present position."

The probable introduction of some system of Rupee tender in 1928 will necessitate a complete overhaul by suppliers of railway plant to the Indian Railways of their methods of representation in India. It is to be hoped that those of them who do not already maintain active representatives or agents in India will take early steps to establish an organisation on the spot.

PURCHASE OF ARMY REQUIREMENTS.

The conditions have not changed since they were described in my last Report. The Master-General of Supply is in general charge of purchases of military stores. The bulk of the imported stores contracted for in India are purchased by the Director of Contracts at Army Headquarters, Delhi-Simla (Col. Dunlop). Textile Stores are purchased by the Indian Stores Department, which now also deals very largely with the engineering requirements of the Military Works Department. The Deputy Director-General (Stores) of the Indian Medical Service purchases in India considerable quantities of drugs, medicines, dressings and surgical instruments and apparatus. Medical stores depots are maintained at Calcutta, Bombay, Madras, Lahore and Rangoon. Practically all other imported stores on Army account are obtained from the Director-General of the India Store Department, London.

STORES PURCHASED BY THE DEPARTMENT OF POSTS AND TELEGRAPHS.

Telegraph stores are the most important item. In his report for the year 1925-26, the Director-General of Posts and Telegraphs states that the value of telegraph stores purchased locally rose from Rs.12,04,000 in 1924-25, to Rs.15,60,000 in 1925-26. At the same time the value of stores obtained by direct indent on the United Kingdom fell from Rs.18,51,000 in 1924-25 to Rs.13,39,000 in 1925-26. The local purchases include hard-drawn copper wire, glass battery jars and insulators, all of which are now manufactured in India. The local supply of insulators still falls far short of the demand, and the balance is obtained by indent on the Director-General of Stores, London.

Increasing use is being made of the Indian Stores Department, which purchases all the heavy textile stores, such as canvas, paulins, mailbags, etc. The system of running contracts recently introduced by the Stores Department has been found to be most convenient.

ARMY CANTEEN BOARD (INDIA).

After a short and somewhat checqured career, the Army Department decided in February last to liquidate the Army Canteen Board (India) and to revert to the previous system of utilising the services of private contractors. An experienced officer of the

N.A.A.F.I. came out from Home as official liquidator, and the winding-up is still being carried on, the large stocks being now almost all sold.

Meetings are now (June, 1927) being held between the Quartermaster-General's branch of A.H.Q. and the All-India Contractors' Association Ltd., Ashiana, Lahore, to discuss future procedure. It is proposed to organise a central purchasing authority and depots at Bombay and Karachi, which would be financed by the Contractors' Association, and from which their members would purchase imported Stores. By this means great economies in purchasing would be effected, and large stocks would be available in case of war. No definite decision has yet been reached.

CHAPTER V.

AN ACCOUNT OF THE PROGRESS MADE DURING THE PAST YEAR IN CERTAIN OF THE MORE IMPORTANT IRRIGATION, HARBOUR, HYDRO-ELECTRIC AND OTHER PROJECTS IN INDIA.

1. IRRIGATION.

Punjab. — I am indebted to the Chief Engineer, Irrigation Works, Punjab, for the following progress report on the various irrigation works, either under construction or projected, in the Punjab :—

Sutlej Valley.—The last report gave progress up to June, 1925. The information below carries us on to June, 1927.

Gandasinghwala.—The headworks have been so far advanced that the river has been diverted over the weir and it is hoped that the opening ceremony will take place in October. The Bikaner Canal which is being lined with concrete for 86 miles where it passes through British territory is so far advanced that it is hoped irrigation will commence when the Gandasinghwala headworks are opened in the autumn.

The Eastern Canal on the left bank and the Dipalpur Canal on the right bank, non-perennial canals, are also so far advanced that irrigation will commence from the summer crop of 1928.

Suleimanki.—These headworks are now completed, having been opened in April, 1926, from which date all three canals taking off therefrom, the Pakpattan, Sadiqia and Fordwah Canals, commenced irrigation for the summer crop of 1926.

Islam.—The progress on these headworks is similar to that at Gandasinghwala; the river has been diverted over the weir and it is hoped that the opening ceremony will take place in October, from which date regular irrigation will commence from the canals on both banks.

Panjnad.—These headworks are situated below the junction of the Sutlej and Chenab and will utilise water from the latter river when all the supplies in the Sutlej are drawn off by the three headworks above. The construction of Panjnad headworks was deferred pending the completion of the Suleimanki headworks so that the plant used on the latter could be utilised. Work in connection with these headworks has now started, the railway line having reached the site and preliminary work undertaken to enable work in the river bed to start next cold weather. These headworks will probably be completed in three or four years.

The Haveli Project.—Taking supplies from a headwork below the junction of the Chenab and Jhelum will command 1·2 million acres and mature three-quarters of a million acres a year, the total capital cost being estimated at four crores. This project is being recast for submission for sanction. Works will not commence before 18 months.

Jalalpur Project.—This project contemplates irrigating 100,000 acres by pumping from the river Jhelum by power hydro-electrically developed by dropping water 70 feet from the Upper Jhelum Canal into the river Jhelum.

Thal Project.—This contemplates irrigating two million acres by water withdrawn from the Indus where it leaves the hills by

the construction of a weir at Kalabagh at a total capital cost of Rs.14 crores. This project is, however, held up by the opposition of Sind to any further withdrawals from the Indus by the Punjab.

Bhakra.—This project involves storage on the Sutlej by a high masonry dam of a portion of the surplus summer supplies for utilisation in the winter. The increase of irrigation will be about 2½ million acres, and the total cost is estimated at Rs.29 crores.

The objection of Sind to the Thal project does not apply to this, as these withdrawals will not have an adverse effect on the supplies for Sind.

The question of storage on the other rivers of the Punjab is receiving serious consideration, as with the completion of the Sutlej Valley project the whole of the winter supply of the five tributaries of the Indus is utilised, and further developments depend on storage.

The question of waterlogging in the Punjab is becoming a matter of serious moment, and a solution is being looked for; at present research is directed to the question of subsurface drainage and to the possibility of pumping from the subsoil where the spring level is too high to permit of waterlogging being prevented by lining the canals with an impervious medium, such as concrete or bitumen compounds.

Sind. Lloyd (Sukkur) Barrage and Canal Scheme.—The following report, showing the progress made during 1926/7 on the Lloyd Barrage and Canals Scheme, has been courteously provided by the Secretary to the Government of Bombay in the Public Works Department :—

As may be generally known the Secretary of State for India accorded sanction to the Sukkur (now Lloyd) Barrage and Canals Construction Project in April, 1923, subject to the formal approval of the Bombay Legislative Council being obtained. At a special session in June, 1923, the approval of the local Legislature was obtained and Government issued orders for construction work to start with effect from 1st July, 1923.

2. The scheme consists of the construction of a barrage across the Indus three miles below the gorge at Sukkur, with three canals on the right and four on the left bank taking off therefrom, each with a separate head regulator. The right bank system comprises the North Western Perennial, Central Rice and South Eastern Perennial (now Dadu) Canals. The left bank comprises the new perennial Rohri Canal; a perennial supply channel to feed the Eastern Nara river and the canals dependent thereon, and two feeder canals for irrigating lands in the Khairpur State.

The Barrage under scientific control will give the necessary supply to each canal, no matter how low the natural level of water in the river may be, provided there is sufficient water in the river Indus from time to time for the combined requirements of all seven canals. All the canals taken together will command about 7½ million acres and enable some 5½ million acres of crops to be irrigated annually. The total length of the main canals and branches will amount to nearly 1,600 miles and that of the distributaries to 3,700 miles. The sanctioned project is for Rs.1,835 lakhs.

3. The scheme is divided into five circles of superintendence with a chief engineer at the head. One superintending engineer is in charge of the construction of the Barrage and the head regulators of the canals, including the first 12 miles of the perennial channel to feed the Eastern Nara, while the remaining superintending engineers are in charge of canal construction.

4. In the Lloyd Barrage Circle two townships, one on either bank of the river, have been constructed to facilitate the execution of works, the larger of the two townships being on the right bank. This main right bank township is provided with a hospital with 24 beds, a bazaar, market and an institute, while the smaller township on the left bank is provided with a dispensary, bazaar, market and small institute. The two townships provide accommodation for 18 officers of and above the rank of assistant executive engineers and 468 officials of assistant engineer's rank and below, close to the site of works. In addition, cooly lines have been constructed and more are under construction for the accommodation of semi-skilled labour on both banks of the river. These when completed will house 2,280 men of all classes. Each township is provided with an independent water supply both for drinking purposes and for works.

5. A large electric generating station has been erected on the right bank with six diesel engine alternator sets of a total capacity of 2,350 k.w. The total units generated during the year 1926-27 was 617,000 at a cost of 3·5 annas per unit including depreciation, repairs and all running expenses. This loan will increase when all plant is in full operation resulting in saving in cost as establishment and depreciation charges will remain nearly constant, whatever the quantity generated. High tension alternating current, generated at 6,600 volts, is distributed to seven convenient points on the works area on each bank of the river where transformer stations are located.

These stations break down the current to 400 volts for further distribution to groups of machines nearby. High tension current is conveyed across the river by a double submarine cable about a mile long laid in the bed of the river. The power is utilised in running hand and floating cranes, concrete block yards, mortar mills, air compressors, stone dressing shops, pumping plant, workshops, etc.; on completion of the works electrical power will be utilised from this plant for the operation of the Barrage and regulator gates.

6. Three quarries equipped with the most up-to-date mechanical appliances have been opened, each with its own power plant for compressed air and necessary pneumatic tools, workshop, store shed, dispensary, works water supply and housing accommodation for the subordinate staff and labour. The Sukkur and Kohistan quarries produce rubble stone and have supplied all the stone for building operations on the right and left banks, for the construction of guide banks and roads, lime burning, etc., and the collection of a large reserve stock at the quarries for further requirements is in progress. The special large sized stones required for ashlar work on the Barrage and regulators are obtained from the Rohri quarry.

For the removal of large blocks of stone from the solid mass in the quarry a channelling machine and a number of wire saws are in operation and these blocks, cut direct from the hill side, are transferred by cranes on to trucks of the Barrage Railway to the stone dressing shop in the left bank works area, where they are cut to required sizes and dressed by machinery ready for building into the work. The stone dressing shop is an up-to-date structure covering an area of 41,400 square feet and it will shortly be one of the largest and best equipped stone dressing shops in India.

7. Two guide banks were constructed in 1923-24, one on each side of the river, the right guide bank commencing from the end of the Sukkur Bunder downstream towards the Barrage and the left bank reaching from the Lansdowne Bridge to the Barrage site. Both banks are pitched with rubble stone. These have successfully withstood three inundation seasons and there is every reason to believe that they will continue to stand successfully with a minimum cost of upkeep.

A metalled road has been constructed along the right guide bank and a broad gauge railway track joining Rohri quarry to the workshops area is laid along the left guide bank.

8. To enable rapid and economical transport of materials, stores, plant, etc., the necessity for which has greatly increased since the commencement of construction, during the year under review, of the regulators, a fine network of broad gauge railway lines has been laid in the works area and quarries on both banks. 32·5 miles of line and sidings have been constructed and are in use and about 7·5 miles are in course of construction, making a total of 40 miles. These lines take off from the North Western Railway lines at Sukkur and Janvri stations, so that trucks can be brought from the North Western Railway and unloaded at any point as required. Up to date 10 locomotives and 548 waggons have been purchased and these have been kept fully employed. The total ton mileage handled by the railway was approximately 650,000 ton miles. A light railway two feet gauge and rolling stock are used for distributing materials on the actual site of works under construction, such as in the cofferdams, lime burning grounds, block moulding yard, etc., and as feeders to the broad gauge lines in the quarries and other works areas. The total length of this railway on both banks of the river is 17 miles. The rolling stock consists of three locos and 650 tip wagons which are kept fully employed. Loco running sheds and high service water tanks have been constructed on both banks of the river for the overhauling and cleaning of locomotives and rolling stock. Storage and high service oil fuel tanks for locomotives have been erected at suitable positions over the area, at which the locomotives, all of which burn oil fuel, can be easily replenished.

9. On each side of the river a well equipped workshop with electric power has been erected and fitted for repairs and maintenance of the plant used in construction. The one on the right bank is larger than that on the left and is provided with a small foundry for iron and brass castings. They carry out repairs to machinery employed in other Circles as well as for the Barrage works proper.

10. On each bank of the river a concrete floor measuring 600 ft. by 52 ft. has been laid down, on which large concrete blocks measuring 10 ft. by 5 ft. by 3 ft. and 5 ft. by 3 ft. by 1½ ft. for the river bed protection on the downstream side of the Barrage and the Canal beds below the regulators are moulded. Each set of plant consists of a 12 ton 60 ft. span Goliath Crane, a travelling mixer gantry with concrete mixer, a travelling ramp for 2 ft. gauge wagons and hoppers and elevators for stone, sand, lime, and cement. These block moulding yards will have to deal with 13,300 blocks 10 ft. by 5 ft. by 3 ft. each weighing 8·5 tons, and 8,000 blocks 5 ft. by 3 ft. by 1½ ft. each weighing 1·25 tons, or a total weight of 123,000 tons.

11. For loading barges with the various materials used on construction, each bank is provided with a wharf 600 ft. long having curved deep water frontages at the lowest stages of the river. The face of the wharves is formed of 40 ft. interlocked steel sheet piling driven into the bed and bank and thus each encloses an area of about 1½ acres of sloping river bank. The top of each wharf is about 4 ft. above highest flood level and carries three lines of broad gauge railway. Heavy materials such as machinery and piling, of which many thousands of tons have to be handled, can be loaded direct from trains standing on the wharves to the barges lying below by means of travelling steam cranes which also run on the wharves.

12. A fleet consisting of two suction dredgers for excavation of foundations in the river, three paddle tugs for towing barges and other craft and for conveying labour across the river, pontoons for pile drivers and pumping sets, four motor launches, heave up boats, etc., have been purchased since the work commenced and are fully employed.

13. The actual construction of the regulators for the canal heads which form the flanks of the Barrage proper was commenced in the autumn of 1926.

The cofferdams of interlocked steel sheet piling are probably the largest ever constructed. The outer wall of each cofferdam consists of a line of steel sheet piling driven into the river bed (to depths varying from 5 ft. to 25 ft. according to the level of the bed) so as to leave their tops above an early June flood level.

This piling is supported on the inside against water pressure outside, by a slope of sand carried up to or above the water level before the inside is pumped out. The cofferdam on the left bank is 1,700 ft. long, the upstream end being 200 ft. wide and the downstream end 700 feet wide (sand bank only). The cofferdam on the right bank is 1,350 ft. long and 200 ft. wide upstream and 600 ft. wide downstream. The former encloses an area of about 18 acres and the latter about 13 acres.

Inside these cofferdams the foundations for the canal regulators and their wide masonry aprons have been excavated and all masonry will be laid in the dry (after pumping out the cofferdams) before the cofferdams are removed.

The quantity of steel piling used in the cofferdams and sumps for the year under review is:—Left bank, 1,700 tons; right bank, 1,600 tons. The quantity of permanent steel piling driven below the floors and the regulators is:—Left bank, 91,300 sq. ft.; right bank, 36,567 sq. ft.

14. To meet the heavy demand for mortar, 50 8 ft. diameter electrically-driven mortar mills have been provided on both banks of the river.

Exhaustive experiments have been carried out in the production of " fat " and hydraulic lime from local lime stone, and the results have been extremely satisfactory. Continuous and intermittent hydraulic lime kilns have been built and the daily output is approximately 7,500 c.ft.

15. One tower on each bank of the river, to command all regulators, was built and the special 8 in. theodolites fixed thereon. From these towers the exact alignment of every part of the regulators can be set out and they are high enough to sight over the top of the highest point of the regulator bridges when completed. Similar but much larger towers will be built during next year at each end of the Barrage for aligning this work and they will be fitted with special 12 in. theodolites.

16. The four Canal Circles have been occupied in surveys, preparation of working designs of canals, acquisition of land for canals, construction of buildings and the excavation of main and branch canals both by mechanical and manual labour. The designs have been prepared for practically all the main canals, branches and major subsidiary channels, and excavation has been carried out during the year with 32 mechanical excavators of various types. Eight more mechanical excavators are in course of erection and four are under supply. There will thus be 44 mechanical excavators of various sizes in operation during the year 1927-28, the largest group of such excavators ever assembled anywhere in the world. The use of these mechanical dragline excavators is not merely an engineering but also an economical problem, as the existing supply of labour for agricultural purposes is interfered with to the least possible extent. Another important aspect of the utilisation of this heavy machinery is that it has prevented the formation of a labour ring, thus keeping down the labour rate. This is very important in an undertaking where labour costs must, in any case, be a large proportion of the total initial outlay. Another equally important feature of the machines is that they can be worked daily for 24 hours for 5½ days a week and also during the hot weather months (at reduced working hours) when it is almost impossible, owing to the intense heat, to do any earthwork in Sind by manual labour. Conditions on the machines during the hot weather are made tolerable by the liberal provision of electric fans. Powerful electric flood lights enable work to be done at night and the electric current for these and the fans is generated on the machines.

17. In addition some work of canal excavation has been given out on contract by manual labour at favourable rates in situations where it is not convenient to use the mechanical excavators.

18. In the North Western Circle the largest sized dragline excavators have excavated the North Western Perennial Canal with a bed width of 164 ft. and depth of 10·2 ft. in a length of 16 miles and the Central Rice Canal in half bed width of 120 ft. and depth of 11·75 ft. in a length of 10 miles. Small machines were employed on excavating the Shahdadkot and Ratodero branches *ex* the North Western Perennial Canal. The total quantity excavated in this Circle to date is about 17·33 crores cubic feet.

19. In the Western Circle, owing to the peculiar nature of the country through which the Dadu Canal and the Central Rice Canal pass, the excavation of these canals is being done partly by mechanical excavators and partly by manual labour. Large and intermediate class excavators are employed on excavating the Central Rice and Dadu Canals and small sized excavators on the tail portion of the Dadu Canal and the Warah and Johi branches. The work by manual labour is proceeding satisfactorily. One of the contractors has employed " Keens " (primitive scrapers drawn by small hill-bullocks), and this affords several months' employment for Brahui hill tribesmen who prove most industrious at this work. In view of the general shortness of labour it is hoped further to exploit this source during next cold weather. The total quantity excavated in this Circle is 18·83 crores c.ft.

20. In the Rohri Canal Circle a total length of about 17 miles of the Rohri Canal, 13 of the Khairpur Feeder East and about 18 miles of the Branch Canals has been excavated. The total quantity excavated is about 23·44 crores c.ft.

21. In the Eastern Nara Circle the excavation of the Khipro Canal *ex* the Eastern Nara in a length of 21 miles and that of the Samarjo and Nabisar branches and distributary *ex* 10th mile Khipro Canal in a total length of 26 miles were completed. To prevent wastage of water through " sangs " (depressions) embankments will have to be constructed on both sides of the Eastern Nara from Rohri right down to Farash near Dhoro Nara Station, a distance of some 203 miles. Of this a length of about 57 miles, from a point on the Nara 27 miles above the Jamrao weir to Makhi weir, has been completed. Besides this some 18 miles of embankment work is in progress between the Makhi and Farash weirs.

Incidentally the construction of these bunds improves yearly the condition of water supply of the existing canals under the Eastern Nara, in that they reduce transit losses and the discharge gained is available for use in these canals.

To facilitate inspection in this inhospitable region a path 12 ft. wide has been provided along the Nara from Rohri to Makhi weir. Both these works are being done by manual labour. The total quantity of earthwork done in this Circle is about 10·20 crores c.ft.

22. The total amount of earthwork contemplated in the project estimates on the main canal, branches, and Nara embankments is 500 crores c.ft. The quantity to be done according to the working estimates will be approximately 425 crores c.ft. and the total quantity done to the end of March, 1927, is 70 crores. The quantity done represents a column 1·5 miles high with 100 yards sides.

The total capacity of the 32 dragline excavators which have been working during the year under report is 54 tons of earthwork excavated and dumped per minute, or 0·9 per second night and day for 5½ days a week and 250 days in the year.

This represents the labour of 22,000 men working all the year round or 53,000 men working for five months of the year, the usual short season in Sind for this type of manual labour.

23. A rectangulation survey of the area under command of the canals of this scheme, excluding Khairpur State, is being carried out by the Survey of India

at the expense of the project. This work has as its ultimate object the standardisation of the size and shape of each survey number, each " number " being 16 acres in area.

The first season's work was commenced during the year under review and it is expected that the Survey of India will complete its part of the task—the splitting up of the commanded area into main rectangles 2·5 miles by 1·6 miles or 2,560 acres—by the year 1930.

The further subdividing of these main rectangles into smaller ones down to the 16 acres plots will be carried out by the staff under the revenue officer of this scheme.

24. During the year ending 31st March, 1927, the work of acquisition of the land for digging the canals, branches, distributaries, etc., has been continued by the special staff under the revenue officer. Since the inception of the project nearly 22,000 acres of land have been thus acquired at a cost of nearly 40 lakhs of rupees, the average cost being thus about Rs.180 per acre. Out of this an area of over 11,000 acres was acquired during the year under report at a cost of over 13 lakhs, at an average rate of Rs.112 per acre. Since these figures represent the prices that have now to be paid in Sind for land which has only a precarious and seasonal supply of water, and land will obviously be much more valuable when it has an assured and permanent supply from the Barrage canals, they afford some indication of the extreme moderation of the estimates which have so far been made of receipts which can be hoped for from sales of land.

The work of land acquisition has now become somewhat intricate owing to the fact that the channels for which land is required are often very narrow, so that a large number of S.Nos. have to be partially acquired to make up a very small acreage. During the year over 4,800 separate awards were made, and the average area taken from over 11,000 survey numbers was about one acre. The high cost of acquisition proceedings which is involved by the necessity of following a complicated legal system in such a large number of individual awards has been partly met by a reduction in the cost of establishment, and all the land acquisition officers will in future be of the Mukhtiarkar's grade, instead of as hitherto some of the Mukhtiarkar's, and some of the Deputy Collector's grade.

25. The whole progress of the work on the Lloyd Barrage and Canals Scheme is being programmed with a view to permit of irrigation being commenced by the new canals in the *abkalani* season of 1931.

26. The total expenditure incurred up to the end of March, 1927, is approximately Rs.5 crores.

List of special tools and plant proposed to be purchased in the year 1927-28.

Railways.

2 miles.	Two feet gauge track complete with steel sleepers, 22 lbs. rails, 11 lbs. sleepers.
5 ,,	Three miles track and two miles renewals and replacements.
8 sets.	Points and crossings.
2	Leanotes for smithy.

Fleet.

Lot.	Pontoons for pile drivers.
,,	Pontoons for floating pumping plant.
,,	Dry dock for repairs to floating craft.

Cranes.

6 sets.	Electrical gear for converting hand operated Scotch derrick cranes to electrical drive.

Pumping plant.

Lot.	Sets of electrically driven pumping plant.

Pile Drivers.

Lot.	Pile driving plant.

Water Supply plant.

Lot.	Miscellaneous additions and alterations.

Mortar Mills.

2 sets.	Sets of mortar mills each consisting of six pans with shafting, etc., complete.
2 sets.	Mortars with switch gear for above.

Electric Power plant.

Lot.	Cables and transmission line materials.

Arch Centres and Supports.

7 sets.	Arch centres and supports.

Miscellaneous plant.

Lot.	Miscellaneous tanks, lifting gear, buoys, etc., etc.
4	Sills and grooves for regulator gates.
12	Sills and grooves for Barrage gates.
1207 tons.	Steel sheet piling for permanent works.
Lot.	Spares for two dragline excavators (30-B).
1	30-B, Bucyrus Diesel driven machine.
Lot.	Spare parts to dragline excavators.
2	Motor lorries.
3	Dragline excavators with two motor tractors and 10 Baker Navvy scrapers.
27·6 tons.	Rolled steel beams and joists.
33 tons.	Gates Stoney for regulators.
33 tons.	Rollers, boxes, cast iron grooves and other accessories.
2	30-B excavating machines.
1	Motor lorry.
50 tons.	Gates Stoney for regulators.
50 ,,	Rollers, boxes, cast iron grooves and other accessories for the gates.

Quarry plant.

1	Air Compressor 235 c.ft.
1	Air Compressor 100 c.ft.
1	Air Compressor 125 c.ft.
4 set.	Accessories for drill sharpeners.
Lot.	Hoses, etc.
Lot.	Drill steels.
10 tons.	Wire for wire saws.

Stone Dressing plant.

1	Planting machine canting arm type.
1	—do— Portland type.
20 tons.	Tool steel for above.
1	Frame saw.
6 tons.	Blades for frame saws.
7 tons.	Chilled shot.
1	Spare blade for simplex diamond saw.
1	—do— duplex —do—
Lot.	Pipes and fittings for water supply to machines.
,,	Spares for 300 Ruston draglines.
,,	—do— 320 Bucyrus —do—
,,	—do— 20 —do—
,,	—do— 50-B —do—
,,	—do— 30-B —do—
,,	—do— 135 Ruston —do—
1	Motor life boat.
1	Evinrude motor.
1	Paddle steamer.

Madras. The Cauvery (Metur) Project.—The Engineer-in-Chief of this project has furnished the following brief note which gives the present position. Further particulars may be obtained by firms interested from the Department of Overseas Trade, 35, Old Queen Street, London, S.W.1.

The Dam line has been fixed, foundations are being exposed, a bridge is being erected across the Cauvery to facilitate building operations and a labour camp is under construction and is being equipped with a filtered and sterilised water supply, drainage and electric light. Quarters and offices for the staff are nearing completion.

The type of construction sanctioned was cyclopean masonry in surki mortar. Much greater speed in construction is possible with a dam built of cement concrete poured through crutes, for which reason the engineers in charge have recommended this type of construction and the local Government is referring the question to an Advisory Board.

If the engineers' recommendation is accepted, it is probable that plant to the amount of about Rs.50 lakhs will be ordered about July next; it includes a power station of about 3,000 kilowatts, compressors and quarrying drills, rock crushers, concrete mixers and concrete placing machinery. A list of the plant recommended has been sent to Government.

On the Canal line masonry cross drainage works have been started and two large Ruston Hornsby dragline excavators have been ordered and are under despatch from England. No other imported machinery is likely to be used in the irrigated area.

2. HARBOUR WORKS.

Calcutta Port Extensions. Progress of the Scheme.—I am indebted to Mr. S. C. Stuart-Williams, Chairman of the Calcutta Port Commissioners, for the following information with regard to this important project. Additional information can be obtained on reference to the issues of " Engineering " of April 29th, May 13th and June 3rd, 1927.

In my report for the year 1924-25 I referred to the scheme of extension now being carried out by the Commissioners for the Port of Calcutta. I stated that the first stage, viz., the construction of five riverside berths in Garden Reach had been satisfactorily completed and I gave certain particulars of the commencement and progress up to the month of April, 1925, of the second stage of these extensions, namely, the construction of the first section of the King George's Dock, comprising a lock entrance 90 ft. by 700 ft., two graving docks 80 ft. in width and 590 ft. and 575 ft. in length respectively, separated by a moveable caisson, and the first portion of the wet dock area comprising about 43 acres and five berths. The whole of this work, together with much connected work to which reference is made later, is being carried out departmentally—under the administrative supervision of Mr. S. C. Stuart-Williams, Chairman, and Mr. J. McGlashan, M.Inst. C.E., Chief Engineer—by Mr. Wilfrid C. Ash, M.Inst. C.E., Deputy Chief Engineer, Construction, assisted by some thirty British and Indian engineers.

It is pleasant to be able to report that the progress made during the last two years with this important scheme has been continuous and satisfactory and that the work has not suffered from any serious set-back. It is true that on account of several adverse factors, chief of which are delay on the part of certain contractors and difficulties of supply caused by the British coal stoppage of 1926, the anticipated rate of progress has not been wholly realised, but the retardation is not very serious. It was originally hoped that the work might be completed fairly early in 1928, whereas it has now been found advisable to work to a later month, probably December, in that year.

At the time of writing (May, 1927) the enormous amount of monolithic work in the lock and dry dock and along the quay walls has been practically completed and in the lock entrance a considerable section of the floor has been completed, while the whole area of the floor has been covered with concrete. The construction of the blue brick facings of the down-stream wall of the lock is now in hand, and accelerated progress is hoped for as the floor work progresses. The important item of the construction of culverts, penstocks and grooves is well in hand and much work has already been done in the camber of one of the sliding caissons. Thirteen out of the 37 penstock valves to be comprised in the work have been fixed in position and an order placed for the fittings required for the bell-mouthed openings of the culverts. All of the five caissons, which comprise two sliding box caissons and three ship caissons, are well in hand and no delay is expected in their completion. The monoliths required in connection with ferro-concrete approach piers have been sunk and an order placed for the ferro-concrete piles for the fender jetties.

In the dock basin the greater part of the quay wall has been completed up to a level of 8 ft. below the coping and the dragline excavators are now engaged on their final cut in front of the quay. Granite for the coping and steps is arriving and no delay is expected in this direction.

Of the three import and one export sheds now being erected, all the foundation work is complete, as also the steel work of three import sheds, while that of the export sheds is well advanced. Orders have been placed for the electrical quay cranes with which each shed will be amply provided and an order is about to be placed for the electric lifts to be installed at the back of the sheds.

Certain important changes in design have been decided upon in the period under review. In the first place, the lay-out of the southern and later portion of the dock basin has undergone an important alteration by the substitution of a transverse for a longitudinal tongue, the principal reason for this change being the desire to reduce the heavy expenditure which the latter type would have involved in carrying the main arterial road of the district, namely, the Circular Garden Reach Road, across the dock system. By the change made, a very large potential saving in the future has been secured without any material loss of facilities. Again as regards the water supply, after prolonged consideration it has been decided to instal at the riverside end of the old dock system, i.e. the Kidderpore Docks, a powerful pumping plant working direct from the river, which will keep the Kidderpore Dock system well supplied and which, by reason of the difference in level between the Kidderpore and King George's Dock, a difference of some 4½ ft., will admit of gravity feed from the Kidderpore to the King George's Dock system and thus secure a continuous clock-wise flow of water with a minimum of pumping. This scheme has also an important ancillary advantage in that it permits of the elimination of the old Canal at present used to supply the Kidderpore Dock system with water and therefore facilitates the disposal of a valuable area of surplus land belonging to the Commissioners in this vicinity.

In addition to the execution of this great work in all its detail, the senior members of the staff engaged upon it have had also to devote a considerable amount of their time and energy to the working out of detailed designs and of preparing plans for the development of the whole area in the future. They have also during the last few months had to undertake the preparation of revised estimates—a task which has engaged a large amount of their time and attention during the year 1926. These estimates as submitted to and approved by the Commissioners in March, 1927, amount to Rs.830·63 lakhs, or some Rs.66·67 lakhs in excess of the original estimates, representing a percentage of under 9 per cent.

Consideration has also been given to many other matters connected with the Commissioners' general scheme of development. It has been decided to construct in the first instance one large four-storied warehouse with modern lift equipment and ample road and rail facilities, and work is already in hand on the first section of this building. Arrangements are also being made to

prepare and demarcate ample areas of land for development as private trade depots which will be provided with suitable road and rail facilities and for which it is hoped there will be a considerable demand as the movement of ocean-going trade to this locality is developed and accentuated. In regard to railway arrangements, while it is considered inadvisable at the present juncture to embark on the heavy expenditure which will be entailed by the construction of a large new marshalling yard and the subsidiary yards necessary to deal with all sections of the Commissioners' property, provision has been made for such *ad interim* additions and alterations as will give all requisite facilities in the near future, while for the ultimate scheme, which will provide on an ample scale for all the railway requirements of the future, the preliminary work of acquiring the additional land and its reclamation is well in hand, as also the preparation of the final plans of lay-out. Lastly, the development of roads is receiving careful attention and includes both the construction of service roads to all the Commissioners' warehouses and private depots on their land and also the construction of suitable approaches to areas which will be utilised for residential purposes.

Reference has been made above to the Commissioner's old dock system known as the Kidderpore Dock, and it is of interest to note that in connection with this dock they are carrying out a work of almost unique difficulty. The existing 60 ft. lock entrance has for some time been less than adequate for the passage of modern vessels and has been heavily taxed by ships and boat traffic for many years, so that it is in urgent need of overhaul. To make this possible and at the same time to provide an entrance more adequate for the larger type of vessel now preponderating, they are constructing a new 80 ft. lock entrance between the old 60 ft. entrance and a small dry dock—a scheme of peculiar difficulty owing to the fact that the site is entirely surrounded by water and the two structures mentioned. Nevertheless satisfactory progress has been made on this work, which is being carried out by monolithic construction, the floor wells of which are of special interest as they cover the whole width of the floor between the side wall wells. It is hoped that this latter entrance will be completed early in 1929 and that when it is brought into use there will be a marked and permanent increase in the usefulness of the old Kidderpore Dock system.

It may be stated with some confidence that the Commissioner's schemes taken as a whole represent a scientific and well-considered effort to cope with the overseas trade of Calcutta and that there is little reason to doubt that their plans make ample and suitable provision for any development likely to occur for many years. The Commissioners have paid special attention to the necessity of providing areas for private trade depots in close proximity to their dock systems and offering not only security of tenure but also exceptional facilities in the way of road and rail access. There is already evidence that the benefit of these facilities is appreciated by British traders and manufacturers and it may be assumed that any enquiries by potential tenants will receive prompt consideration from the Commissioners' staff, who will be pleased to furnish any particulars desired.

Bombay Port Trust Capital Works.—In their administration report for the year 1926-27 the Trustees of the port of Bombay state that :—

In view of the depression in trade and the consequent effect on the Board's revenue, capital expenditure during the year was kept down to an absolute minimum, being restricted to essential works. It aggregated Rs.21·81 lakhs, the principal works carried out being the construction and completion of a new transit shed at No. 9 berth, Alexandra Dock, the deepening of the Alexandra Dock entrance channel and the mail steamer berth, and repaving and metalling of wharves in the Alexandra Dock and the construction of a new office for the Deputy Manager and the cash department in the same dock. No new loan was raised by the Trustees during the year, the expenditure being financed from loan balances in hand.

Karachi Port Improvement Scheme. — Mr. J. B. S. Thubron, C.I.E., Chairman of the Karachi Port Trust, has contributed the following note on the position :—

Note on the progress of the West Wharf Works and the future requirements, etc.

The construction of six deep water berths on the west side of the harbour was commenced at the end of 1923 and good progress has been made. The quay wall for two berths, each 550 ft. long, is now completed. The dredging in front of the berths will be carried out on the arrival of a new bucket dredger from England at the end of this year. Five 2-ton electric cranes for No. 1 berth are erected and five cranes for No. 2 berth are on order. By the end of the present year, it is expected that one berth will be opened. The depth alongside these berths will be 32 ft. at low water ordinary spring tides.

The present rate of progress is one berth a year and if this rate is maintained, the six berths will be ready for occupation by the end of 1931.

Five 2-ton electric cranes will probably be ordered next year followed by five more every year until 1930. No more machinery or plant is likely to be required for construction work.

The purchase of the following plant is under consideration :—

Quadruple grab hopper self-propelling dredger of 1,000 tons hopper capacity.
One 10-ton steam crane.
Electric cable and lamps for yard lighting.
Rails and crossovers, etc., for new railway lay-out.
Machine tools for workshop (lathes, steam hammer and drilling machines).
Two 800-ton dumb barges.

British manufacturers when tendering for requirements should place themselves in touch with the Board's Consulting Engineers, Messrs. Rendel Palmer & Tritton, 12-14, Dartmouth Street, Westminster, S.W.1.

Harbour Developments in the Madras Presidency.—Mr R. C. Bristow, Harbour Engineer to the Madras Government, has very kindly supplied the following note on the harbour schemes at Cochin and Tuticorin.

Note on the present position of the harbour works at Cochin and Tuticorin.

COCHIN.—Ocean-going vessels at present anchor off Cochin a distance of about three miles. Loading and unloading of cargo is effected by means of cargo boats. In monsoon weather steamers lie a mile or two to the north of Cochin at a place called Malipuram where, owing to the nature of the sea-bed, which is an oily mud, the water is generally calm.

Cochin, however, has a wonderful natural harbour 100 square miles at least in extent, approached through an entrance about 400 yards wide. The present stage of the harbour works is limited to dredging deep water berths for 12 ocean-going vessels within this natural harbour. The approach channel through the outer bar, however, is the chief difficulty. Dredging can proceed only between December and March inclusive, the plant being engaged for the rest of the year on dredging inside the harbour.

The capital works have been in progress for about one year. The large suction dredger *Lord Willingdon,* built by Messrs. Simons & Co., Renfrew, was designed to dredge at the rate of 1,500 cubic yards of sand and mud per hour. Over the whole of her first season's work she dredged at approximately the rate of 1,600 cubic yards per hour but for considerable periods averaged 1,800 cubic yards per hour, and occasionally as much as 3,000 cubic yards per hour, when the material was soft mud and everything was going well.

Every dredging work in the open sea, however, brings its own special difficulties, and at Cochin this difficulty lies in the evolution of a satisfactory pipeline to withstand the almost constant swell which prevails. During the

first season's dredging the ball joints of the pipeline gave considerable trouble and are to be replaced by others specially designed to check and control the constant fret at the joints.

The ex-German dredger *Seetief*, re-christened *St. Andrew* on St. Andrew's Day, 1926, has also done good work on the outer bar. She is what is known as a hopper-trailer, that is to say, she drags a scoop behind her from which the spoil is pumped up into her own tanks and discharged therefrom in deep water at sea. It is expected that about 1½ million cubic yards of spoil will have been dredged during the first year's work, notwithstanding all the difficulties which inevitably arose with new plant dredging in untried conditions.

Inside the harbour the spoil is being discharged into a large reclamation. It is admirable material for this purpose, being heavy and solid enough to bear a person standing on it directly after the land is above water.

With the exception of the ball joints, the re-design of which is now being attended to, the plant supplied by Messrs. Simons and Co. has been proved very satisfactory. It is hoped that the works will be sufficiently advanced for steamers to come into the harbour in 1929.

TUTICORIN.—At Tuticorin the loading and unloading of steamers is done in the same way as at Cochin, but the vessels lie much farther from the town, the distance being six or seven miles, practically double what it is at Cochin.

The present stage of the scheme provides for six or eight vessels to lie in a turning basin or wet dock approached through a land-locked canal across the peninsula known as Hare Island. The capital works at Tuticorin have been in progress about two years, and great difficulty has been experienced in dealing with the varied classes of coral, conglomerate, and rock, which exist at different levels down to 30 ft. below low water. The practical difficulties, however, have been largely overcome during the past year when the dipper dredger *St. George* has succeeded in dredging direct without the use of a rock-breaker materials ranging from loose or " finger " coral to very hard lime stone rock which exists in a layer about 3 or 4 ft. thick at a depth of 12 ft. below low water. Below this, however, at a level of roughly 24 ft. below low water, there exists a very tenacious conglomerate in a layer 2 or 3 ft. thick, which the present vessel has not been able to dredge or break at an economical rate. Consequently it is proposed to obtain a vessel of double the power to deal with this exceptionally tenacious layer, and in view of the extra cost and local apprehension as to the effect on the finances of the Port, Government have decided to obtain the advice of an expert committee on the subject of the new plant and the estimate as a whole. It is anticipated that a committee of experts will give a verdict on the proposals before the end of 1927.

It is interesting to note that the existence of these hard materials, while making dredging difficult, facilitates and cheapens other work. For example, the various classes of rock are all suitable for dumping on the sites of the breakwaters which will protect the approach channel. They are also suitable for building into the wharf wall, which, it is hoped, will eventually be built on at least two sides of the turning basin or wet dock. The chemical composition of the loose coral is such that it may be practicable to use this material, after preparation, for the manufacture of building blocks for transit sheds, and godowns. Experiments and trials are in progress with this object. Finally a large percentage of the spoil is being deposited direct into railway wagons which tip it practically dry into a reclaimed area adjacent to the turning basin. It is hoped that vessels will be able to lie in the Turning Basin by the year 1931.

The Port of Rangoon.—Mr. J. A. Cherry, C.I.E., has very courteously supplied the following note on the work carried out on Port extension schemes in 1926/7 and progress anticipated during 1927/8.

Before giving a brief description of work in progress and projected in connection with the various schemes of Port development, it will be of interest first to observe the traffic returns of the Port for the last financial year, closed 31st March, 1927. The Port of Rangoon has completed another satisfactory year, though in most instances the traffic figures for the previous record year 1925/6 are not surpassed. During last year 1926/7, 1,448 vessels with an aggregate net tonnage of 3,813,564 tons entered the Port, a decrease of 65 in number and 235,735 tons in tonnage compared with the figures of 1925/6, which constituted a record. The sea-borne traffic was 4,994,324 tons, of which 1,479,873 tons were imports, 3,501,557 tons exports, and 12,894 tons transhipment, a total decrease of 370,043 tons compared with last year. The volume of seaborne traffic over the Commissioners' premises totalled 1,717,935 tons of goods during the year, an increase of 80,276 tons over the wharves and a decrease of 53,836 tons over the foreshore, i.e., a net increase of 26,440 tons compared with last year. River-borne traffic passing over the Commissioners' premises was 840,262 tons of goods against 843,507 during 1925/6, a decrease of 3,245 tons.

Considerable progress has been made in connection with the development schemes of Port facilities, which in 1925 formed the subject of a special report entitled " Proposals of Port Development, 1925," and the position with regard to these schemes, which were approved by the Commissioners at their meeting in October, 1925, is given below.

Wharves extension and re-construction for sea-going vessels traffic.—Work on this project was not commenced during 1926/7, but during the current year an estimate amounting to Rs.45,016 has been sanctioned for preliminary works connected with the joining up of Sule Pagoda and Latter Street wharves. The preparation is in hand of estimates for a reinforced concrete wharf 509 ft. in length, a double storey steel frame transit shed with a floor area of 119,700 square feet, electric cranes and lifts, and for the provision of roads and railway sidings. It is anticipated that during the present financial year tenders will be invited in connection with some of the foregoing items. It is unlikely that work on the eastern extension of Sule Pagoda wharf will be commenced during 1927/8.

Lanmadaw foreshore development for inland vessels, local and railway traffic.—Progress on this scheme is necessarily gradual as a programme of traffic re-distribution has to be worked to, of which the next two schemes form a part. Since the close of last year, estimates amounting to Rs.4,82,445, including provision for new steel frame godowns, railway sidings, roads, pontoons, steel bridges and jetties, have been sanctioned, and a tender placed locally for Rs.1,14,775 for the supply and erection of three blocks of steel frame godowns* with an area of 33,000 square feet. These godowns, which will be completed by December, 1927, are to accommodate temporarily the Crisp Street rice depot traffic, which will be transferred before the commencement of the next rice season to permit of other development works at Crisp Street.

Botatoung development for the Irrawaddy Flotilla Company's Mandalay Steamer traffic.—At the new depot at Botatoung the construction of roads, drains and two blocks of steel frame godowns with necessary railway sidings has been completed, also an office and godown for the Irrawaddy Flotilla Company. The construction of three transit sheds, an open shed and six further blocks of steel frame godowns with accompanying railway sidings is in hand. Tenders amounting to Rs.3,40,261 for the supply and erection of the transit sheds and godowns were placed locally during the last financial year. Work is proceeding rapidly, and it is anticipated that the Lanmadaw traffic will be transferred in December, 1927, by which date 125,000 square feet of transit shed, open shed and godown storage accommodation will be available. Three 200 feet pontoons with double approach

*Foundations and masonry in walls and floors are being constructed departmentally.

jetties are being provided and pile driving work in connection with the latter is well advanced. Capital expenditure on this scheme during 1926/7 amounted to Rs.3,44,848, and there is provision in the current Capital Budget Estimates for additional expenditure amounting to Rs.8,09,290.

The construction of a new Import Salt Depot at Pazundaung.—This depot comprising 33 godowns with a total area of 129,000 square feet giving accommodation for 40,000 tons of salt, roads, railway sidings and a jetty, is nearing completion, and it is expected that the whole of the import salt traffic will have been transferred to Pazundaung before the close of 1927. During last financial year tenders amounting to Rs.5,10,112, for the supply and erection of the godowns were placed locally. Expenditure on construction and equipment of the depot totalled Rs.3,60,843 at the close of last year and provision has been made for further expenditure during the present year amounting to Rs.8 75,000.

Additional moorings for sea-going vessels.—This scheme provides for the laying of two new blocks of six-berth fixed moorings, the first of which, now being laid, involves the extension eastwards by two berths of the present block of fixed moorings off Botatoung and the laying of four berths at the western end of the harbour, and will be completed during 1927/8. It was originally intended that the laying of the second new block should not be completed before 1932/3, but if mooring accommodation should still be found inadequate it is anticipated the work will be put in hand on completion of the first new block. During last year mooring plant to the value of £50,000 was purchased at home, and local expenditure amounting to Rs.1,73,011 was incurred; a further sum of Rs.4,94,000 is provided in the budget estimates for 1927/8.

Development at Dawbong.—Approximate estimates amounting to Rs.21,00,000 have been prepared for work in connection with the protection and revetment of 7,800 ft. of the Pegu River foreshore. It is hoped that it will be possible to commence this work before the end of 1927/8.

Passenger Depot—Phayre Street.—Estimates amounting to Rs.2,83,153 for the provision of alternative facilities for local and sea-going passenger traffic necessitated by the scheme for extending the eastern end of Sule Pagoda wharf have been sanctioned, and it is anticipated work in connection with the construction of this depot will be commenced before the close of the present financial year.

Acquisition of the Military Commissariat Depot at Godwin Road.—Negotiations have been satisfactorily terminated for the transfer of this depot to the Commissioners for Port traffic purposes, and when the Commissioners have provided a new depot, the Military department will relinquish the present one. Detailed plans and estimates are in course of preparation for a new depot occupying approximately the same area, to be built by the Commissioners on their land fronting the Strand Road and immediately west of Latter Street wharf, with direct road and rail access and landing and shipping facilities over the Commissioners' Crisp Street pontoons and jetties.

King's Bank Reclamation Works.—This scheme, which will be completed by December 1927, consists of the erection of a groyne 6,000 ft. in length at the entrance to the lower harbour, and the hope that it would afford considerably greater depths of water in the Monkey Point and Hastings Channels would appear to be already justified, as results of recent surveys disclose that without dredging, there is 3—4 ft. more water in these channels than during the corresponding period of last year, when dredging took place. Expenditure amounting to Rs.32,47,229 has been incurred on construction up to the close of last financial year, and provision has been made for expenditure during the current year of Rs.5,54,421.

Commissioners' New Head Offices.—The construction of these offices is proceeding rapidly, the erection of the outer walls and roof being well advanced, and it is expected the building will be completed well within the contract time which expires on 24th May, 1928. The building is a four storey

steel frame structure carried on foundations consisting of over 500 concrete piles, with a tower 180 ft. high at the south-west corner. Three separate contracts were made for its erection, viz., foundations Rs. 1,80,597 by Messrs. Clark & Greig Ltd., of Rangoon, steel work £21,641 by Messrs. Dorman Long & Company, of Middlesbrough, and general construction Rs.9,58,659 by Messrs. Clark & Greig Ltd. The architect is Mr. T. O. Foster, F.R.I.B.A.

In addition to the foregoing works the provision of a new dredger and a 60-ton floating crane is under consideration.

The Vizagapatam Harbour. — The following extracts have been taken from the annual progress report very kindly supplied by Lieut.-Col. H. Cartwright-Reid, C.B., Engineer-in-Chief :—

Manganese Wharf.—Bunds have been constructed around the area to be used for the Manganese Wharf and similar bunds have been constructed around the area for storage godowns and the canal in front of the godowns has been commenced.

The tender of the Hooghly Docking & Engineering Company has been accepted for the construction of a motor ferry boat which will be delivered in December, 1927.

The Madras Government have agreed to carry out, at an estimated cost of Rs.15,000, the portion of the diversion road which is outside the harbour area and have also agreed to contribute Rs.20,000 towards the cost of the remainder. They have issued orders that the Great Northern Trunk Road is to be diverted so as to run through Vizagapatam across the new diversion road over the swamp.

Monolith Quay Wall.—Very good progress has been made with the construction of the monolith quay wall. A contract was entered into with Messrs. Jessop & Company, Calcutta, for the construction of steel shoes; the first of these was delivered on 5th August, 1926, and the last on 27th March, 1927. The monoliths have to be sunk to a depth of 45 ft. below low water. Two-fifths of the masonry of these monoliths has been constructed and the monoliths have been sunk to depths varying to 24 ft. 580 ft. out of a total sinking of 1,730 ft. have been completed. Progress on this work is very satisfactory, and is well ahead of the programme, but a slowing-up of speed is likely to occur in sinking the monoliths to their final depths.

The material removed from the monoliths is being used for the reclamation of the area immediately behind the wharf wall, and the foundations for the transit sheds have been put in hand to enable the filling to be placed round them and avoid the expense of excavations of the foundations hereafter. Owing to the strike on the Bengal-Nagpur Railway, the deliveries of cement could not be obtained and the foundations which are built in lime were put in hand to keep the masons employed.

Electric Power Station.—Tenders have been called for the construction of the well for circulating water, as this must be carried out in advance of the foundations of the building. Approval to the estimate for electric power station was not received until after the end of the year.

Oil Fuel Depot.—The principal bund around the area to be reclaimed for oil fuel depot has been constructed and meetings with the oil companies have taken place. At these the companies have indicated that Vizagapatam may be a very much larger oil depot than was previously contemplated, and they have agreed to put forward suggestions of their larger ultimate requirements, and these will be placed before the Advisory Committee in due course.

Dredging.—The rock breaker and dipper dredger arrived from England on 26th May, 1926, and after undergoing satisfactory trials has been working during the year. She has lifted during the year 460,270 cubic feet, principally in the old railway bund which consisted largely of rubble stone surrounding timber piles.

The grab dredger *Mudlark* has lifted 153,350 cubic feet during the year.

The motor tug *Dolphin* was delivered on the 18th December, 1926, and e water and anchor boat on the same day. The latter, on trial, was not atisfactory, and the contractors have been called upon to remedy the lefects.

Two rock barges fitted to take 120 tons each of rock on deck with a 50 cwt. crane were delivered on the 29th January, 1927.

The Suction Dredger *Vizagapatam*, which was due for delivery at the end of October, 1926, was delayed owing to the coal stoppage, and after undergoing satisfactory trials in the Clyde was navigated to Vizagapatam which she reached on the 23rd January, 1927. She was prepared for dredging and commenced a cut through the bar, picking up the material into a hopper and conveying it to sea. This was continued until 15th February, 1927, when the port propeller was damaged which made it impossible to continue this system of dredging until the vessel was docked for the propeller to be repaired. Overboard discharge connections were then fitted to enable the dredger to work by pumping through a floating pipe line. Owing to the roughness of the surf on which the dredger was working the floating pipe line was damaged, and on 16th March, the pipe line deflector was carried away by the rough sea and the pipe line broken. The weather continuing rough, the bow mooring wire and the anchor cables of the dredger snapped and the ship went aground on the north side of the cut. The pipe line, after battering against the side of the ship, sank alongside. The dredging master lowered the suction frame, but this was broken in a few minutes, and the heavy swell drifted the dredger higher up the beach. The broken suction frame damaged the stern of the vessel, and it was afterwards found that both the rudders had been broken and the ship holed where it struck the broken suction frame. With the assistance of the tug *Sir Frederick Dumayne* the dredger was hauled off on 27th March, 1927, and towed to Calcutta for repairs.

This accident to the dredger will postpone the dredging work for a period of about nine months as the repairs cannot be completed before September or October, and in view of the possibility of cyclones it would not be safe to bring the dredger back to work before the end of November next.

Finance.—The total recorded expenditure to 1st April, 1926, was Rs.64,76,751. The accounts are not yet closed for 1926/7, but it is anticipated that the expenditure will amount to about Rs.31,86,464. The full amount of the grant could not be expended this financial year largely owing to the non-delivery of the dredger *Vizagapatam* and to the delay in obtaining sanction to proceed with officers' and subordinates' quarters, electric power station, etc.

Port of Chittagong.—Commander C. R. Bluett, R.I.M., Port Officer and Secretary to the Port Commissioners, Chittagong, has supplied the following note with regard to this port :—

Schemes for the improvement and development of facilities for the trade and shipping of the Port of Chittagong have been under consideration by the Port Commissioners and the Assam-Bengal Railway Company for some years. These schemes may be briefly outlined as follows:—

(1) *River Training.*—The Port of Chittagong, which is situated ten miles from the entrance to the Karnafuli River is growing in importance, and the question of increasing the depth of water over the bars to permit deeper draft vessels to use the port has become a matter for serious consideration.

Messrs. Rendel, Palmer & Tritton, the Consulting Engineers to the Port Commissioners of Chittagong, have now been asked to advise as to what training works should be carried out in the very near future to improve the river, and it is hoped that work in this connection will soon be taken in hand.

(2) *Dredging.*—The Port Commissioners possess at present one Suc Hopper Dredger which does good work in maintaining more or less consi depths on the bars, but in order to increase these depths an order has b placed with Messrs. William Simons and Company of Renfrew for a mod twin screw bow-well suction dredger with a hopper capacity of 2,000 ton These two dredgers will, it is believed, make a very considerable difference t the bars, and when the training works are taken in hand it is confidently expected that vessels of a much greater draft than at present will be able to use the Port.

(3) *Lighting of the Approaches to the Port.*—A new light of 65,000 candle power and a visibility of 13 miles has just been installed near Norman's Point at the mouth of the Karnafuli River to replace the old light, which was only 200 candle power and had a visibility of only 10 miles.

The provision of a new modern light-vessel at the South Patches Reef, 50 miles from the mouth of the River, is also contemplated, and this will, if sanctioned, satisfy a long-felt want by ships.

(4) The Assam-Bengal Railway have in view the building of an additional river jetty for sea-going ships, and this will be taken in hand so as to be completed when the beneficial effects of the river training and dredging are felt.

3. HYDRO-ELECTRIC SCHEMES.

The Punjab Hydro-Electric Scheme (known as the Uhl River project). — Lt.-Col. B. C. Battye, R.E., has very kindly supplied the following brief report on the progress made during the year :—

The Hydro-Electric Branch of the Public Works Department was formed in the early spring of 1926. During the past year a complete new Branch has been built up, consisting of Administration, Engineering and Construction Departments and six Divisions.

Large numbers of orders have been placed for construction plant during the past nine months, most of which is now arriving at site and expected to be erected and working within the next three or four months.

This construction plant consists of a complete temporary hydro-electric installation, generating 900 kws and about 12 miles of electrical transmission and distribution, a complete telephone system, two compressor stations with several miles of compressed air piping, and a complete system of haulage and tramways connecting up the different portions of the work along the mountain sides and each side of the range through which the tunnel will be driven. Temporary communications have also been opened up and two complete hutted camps erected in addition to the permanent residential buildings required for the operating staff.

At the present moment workshops and store buildings are nearing completion, and it is hoped to have the serious driving of the tunnel started in October of this year. With the exception of the winches for the haulage-ways, the bulk of this plant has been purchased in Great Britain.

The field work now nearing completion consists (in addition to the buildings already noted) of the construction of about four miles of 2 ft. 6 in. gauge tramway along the mountain sides, and three complete haulages, averaging about 5,000 feet in length.

During the past year the Engineering Department has been preparing detailed surveys and designs for the hydraulic works and the transmission system. The detailed designs for about 400 miles of trunk and branch transmission lines are now nearing completion, and tenders will probably be called for towers, cables and insulators for this equipment in the course of the next few months. Meanwhile the surveys and preliminaries connected with the taking over of land, for the transmission lines and sub-stations are in hand.

A complete programme of construction has now been completed which, if adhered to, will enable the first stage of the scheme to be completed and ready for operation by the summer of 1930.

Hydro-Electric Developments in the Madras Presidency. —The following brief note has been forwarded by the Chief Engineer to the Government of Madras in the Public Works Department :—

During 1926, preliminary reports with estimates were prepared for three hydro-electric schemes—Pykara, Pinjikave and Papanasam—all on the Western Ghats. These were scrutinised by the Consulting Engineers to the Railway Board—Messrs. Merz & McLellan—and on their report it was decided to proceed with the Pykara Scheme if sufficient demand for power was found forthcoming. The Government appointed a Committee of enquiry for the purpose and the Committee's labours, together with the negotiations conducted by Government with the South Indian Railway and the Railway Board, showed that there was enough demand to warrant construction of the first stage of the scheme.

The Pykara Scheme is to utilise the waters of the Pykara River which takes its origin on the Nilgiris Plateau and drops down to the plains 4,000 ft. below in a series of rapids situated about 16 miles by road to the north west of Ootacamund. The scheme provides for a storage reservoir on the hills, flume, forebay, pipeline along the slope and power station below. The head utilised is nearly 3,000 ft. The first stage development is to instal about 25,000 k.w. and power will be carried over transmission lines at 110,000 volts to Coimbatore, Dindigul, Trichinopoly and Madura. The principal consumers will be the South Indian Railway, who have a programme of main line electrification from Madura to Trichinopoly and Dindigul to Podanur, and the cotton and other mills in the towns—Coimbatore and Madura.

Further investigation at Papanasam is proceeding and an economical development providing about 9,000 k.w. in the first stage with capacity for extension to more than double that figure later, seems possible at the site.

The Ceylon Hydro-Electric Project. — The Director of Public Works, Ceylon, has courteously supplied the following brief note with regard to the present position of this scheme :—

The hydro-electric scheme is divided into three progressive stages, the ultimate capacity of which will be 50,000 kilowatts. The carrying into effect of the first stage is all that is contemplated at the present time. This will give an output of 10,000 kilowatts. The plant to be installed consists of three sets of 6,000 kilowatts, two pipe lines 48 in. to 36 in. diameter approximately one mile in length, and duplicate transmission line 50 miles long, operating at 88,000 volts and each of 12,000 kilowatt capacity.

It has also been decided to instal in Colombo a steam plant consisting of two units of 3,000 kilowatt capacity to supply 3-phase alternating current at 11,000 volts, and also a distribution system of underground cables to supply current to consumers at 416 volts for power and 230 volts for lighting.

Messrs. Preece, Cardew and Rider, of 8, Queen Anne's Gate, Westminster, S.W.1, are the Consulting Engineers for this work.

4. OTHER WORKS.

The Calcutta Chord Railway project and the Bally Bridge. — The following note, giving a short history of this railway and a detailed note of the plant and machinery which is being used in the construction of the Bally Bridge, has been very kindly supplied by Mr. A. H. Johnstone, the Engineer-in-Chief :—

So far back as 1912 the congested state of the downward coal traffic was causing serious concern to the commercial community of Calcutta; and the agencies then interested in the coal trade were pressing for better railway communication between the coalfields and the docks. Among the various suggestions made at the time and considered at the Conference held in October, 1912, by a special committee, who were enquiring into the situation, were proposals to build a new line from Burdwan to Howrah, also one from Bishnupur to Shalimar, to connect these lines by a bridge over the Hooghly, and by an independent line with Kidderpore, so as to give the East Indian Railway and the Bengal-Nagpur Railway direct access to the docks.

2. The Burdwan Howrah Chord was constructed and was opened for traffic in January, 1917.

3. In 1914 the proposal to build a bridge over the Hooghly, with a direct line to the docks, was revived and reports and estimates for the following projects were prepared:—

A bridge over the Hooghly crossing the river at Panihati 6½ miles above Calcutta.

A bridge over the Hooghly crossing the river at Bally 5 miles above Calcutta.

A bridge over the Hooghly crossing the river at Belur 4 miles above Calcutta.

These projects included a direct connection with the docks, also, as an alternative, connections *via* the Eastern Bengal Railway, utilising the existing dock section of that railway and leaving the question of an independent dock connection to be decided when traffic had developed sufficiently to indicate the necessity for another route. These reports were examined by the Railway Board, by the East Indian and the Bengal-Nagpur Railways and by the Port Commissioners. After a careful consideration of all the available information a decision was made in favour of the Bally crossing. The grounds on which this decision was given were the stable condition of the river, the importance of obtaining the shortest possible route to the docks and the desirability of locating the bridge near Calcutta.

4. The final survey for a line crossing the river at Bally was prepared in 1922, but it was not until 1926 that the actual construction was sanctioned.

5. The main feature of interest in the work is the bridge over the Hooghly at Bally. It will consist of seven spans of 350 ft. girders carried on concrete piers, the foundations of which will be sunk to a depth of about 115 ft. below low water. The caissons on which the foundations will rest are of twin octagonal design, 70 ft. long by 37 ft. wide, with two dredging holes of 19 ft. diameter. The caissons are being built by local firms of Tata steel, the lower or curb portion weighing 132 tons. Outside and inside steel strakes will be added to suit the depth of water in each case, the deepest being 48 ft. Above the strakes, which will be filled with concrete, the steining will be built in cement concrete with steel shuttering.

6. The sinking will be done by means of 100 cubic feet Bells dredgers worked by 15 ton electric cranes. Two of the cranes are of the overhead gantry type fitted on steel stagings carried on steel barges braced together, and two of the derrick pattern with 90 ft. jibs, fitted on steel pontoons 80 ft. by 66 ft. The gantry cranes were originally procured for the Hardinge Bridge and the latter have recently been supplied by Messrs. Butters and Company, of Glasgow. They have a lifting speed of 80 ft. per minute and a slewing speed of 500 ft. per minute. The same firm have also supplied a 15 ton floating steam crane, which will be used for general purpose throughout the work.

7. The power on the west bank is derived from an aerial line which is tapped off the main transmission line running from the East Indian Railway Power House at Lillooah to Bandel. The power is at 10,000 volts, three phase, 50 cycles and is controlled by an aerial switch complete with Lightning

Arrestors supplied by Messrs. Metropolitan-Vickers Electrical Company Ltd., Calcutta. The aerial line is terminated in a short length of cable supplied by Messrs. The British Insulated Cables Ltd., Calcutta. The substation equipment consists of two 400-k.v.a. oil immersed self-cooled transformers supplied by Messrs. The English Electric Company Ltd. These are controlled on the high tension side by two truck type switches of the English Electric Company's manufacture. The low tension switchboard is also by Messrs. The English Electric Company Ltd., and consists of two incoming and four feeder panels. The low tension voltage at the substation will be 440 volts and distribution is at this pressure to all circuits.

8. The power on the east bank is derived from the mains of the Calcutta Electric Supply Corporation, who have laid an underground cable into the substation from their substation at Barnagore. The power in this case is 6,000 volts, three phase, 50 cycles. The equipment of the substation is exactly the same as that of the west substation. Each substation has a 90 k.v.a. condenser installed, made by the British Insulated Cables, with the object of keeping up the power factor to an average of ·9.

9. An interesting feature of the equipment of the two substations is that all equipment in either substation is interchangeable with the other. The transformers are arranged to take power at 10,000 volts connected in star and 6,000 volts when connected in delta and to supply either 440 or 220 volts by means of a series of parallel connections. Voltage regulation is arranged by + 5 per cent. taps on the high tension side. The truck type switchgear is provided with two sets of potential transformers for 6,000 or 10,000 volts and the low tension switchgear is large enough to carry full load at 220 volts. The object of this is that after the construction of the bridge is completed the whole of the equipment can be used in the carriage and wagon workshops of the East Indian Railway at Lillooah where the standard high tension voltage is 10,000 volts and the standard low tension voltage is 220 volts.

10. Power for lights and fans for the bungalows and the offices is derived from two 10-k.v.a. single phase 440-230 volt transformers supplied by Messrs. Metropolitan Vickers Electrical Company Ltd., with + 5 per cent. taps. The fans are mostly of Messrs. Crompton's and Metropolitan-Vickers' manufacture.

11. The river craft consists of three steam tugs, four motor launches, two 1,000 ton, ten 100 ton and seven 50 ton barges, all of which have been supplied by local firms.

12. An electrically driven workshop equipped with the usual machines has been erected on the west bank and a small subsidiary shop is in course of construction on the east side of the river.

In addition to the plant mentioned above there are a large number of concrete mixers, air compressors, stone crushers, sinking pumps and numerous other machines on the work, all of which have recently been imported from British firms.

13. The strike in England delayed the supply of the plant, but most of it has now been received and at the present moment piers No. 1 and No. 8 are in process of construction.

14. The girders, which will weigh about 2,000 tons per span without roadways, are now being designed by Messrs. Rendel, Palmer & Tritton, the consulting engineers. They will be designed to the new heavy mineral loading, and although the local Government have not yet definitely decided to pay the cost of roadways and footways, the main girders will be built strong enough to carry them at any future date.

15. The approaches to the bridge will consist of over half a mile of viaduct on each side with high earth embankments running down to the main line junctions with the East Indian and Eastern Bengal Railways. At the present moment a final decision has not been come to as the design to which the

viaducts should be built, as owing to the high increase in loading recently introduced by the Railway Board it is thought that re inforced concrete arches or steel girders may prove more suitable than the brick arches provided for in the project estimate.

16. The work should be in full swing next cold weather and it is anticipated that it will be completed early in 1930.

Bombay Back Bay Reclamation Scheme.—Any account of the large works in progress in India during 1926 would not be complete without a reference to the Back Bay Project, the enquiry into which attracted such attention in engineering circles towards the end of 1926. In July, 1926, the Government of India appointed a Committee of Enquiry, under the Chairmanship of Sir Grimwood Mears, firstly to enquire into the history of the inception and conduct of the Back Bay Reclamation Scheme, and secondly to make recommendations as regards future operations. It is not practicable in the limited space available to deal with the Committee's report which, together with the forecast of future operations, can be seen at the Department of Overseas Trade. Very little additional plant remains to be purchased, and the present position is largely one of professional interest for British engineers.

The Howrah Bridge.—The Howrah Bridge Act, 1926, was brought into force on April 1st, 1927, and on April 11th the Calcutta Port Commissioners held their first statutory meeting as Commissioners under the Act for the new Howrah Bridge. The proceedings were summarised by the Chairman in the following brief note :—

" Having regard to the sources of revenue authorised under Sections 8 and 11 of the 1926 Act, and of the estimates of receipts expected to accrue under these sections, the Commissioners consider that after making necessary provision for the working expenditure of the new bridge in regard to staff, the maintenance of ferry steamers, dredging and the care of the structure, the amount which will remain available from these total receipts to meet interest and sinking fund charges on the new structure will not admit of any type other than a floating bridge to be constructed under the authority of this Act. The Commissioners therefore decided to address Government accordingly and to say that in these circumstances, they were proceeding with the arrangements necessary for the construction of a floating bridge.

The Commissioners also decided provisionally to adopt the proposal that the new bridge should be located at a new site upstream from the present bridge at a distance of some 270 ft., that if possible there should be one undivided roadway 80 ft. in width with footpaths on either side 15 ft. in width each and also provision for a double line of tramways provided satisfactory terms could be arranged with the Calcutta Tramways Company; also that the abutments should be constructed on a foundation of monoliths.

The Commissioners also unanimously agreed that arrangements should now be made for the preparation of detailed plans and estimates of the most suitable type of structure by a competent firm of consulting engineers and that for this purpose negotiations should be instituted with the firm of Rendel, Palmer & Tritton, consulting engineers to the Secretary of State for India.

The Commissioners also decided that it would be advisable the same firm should be responsible for the design not only of the bridge structure itself but

also of the abutments, leaving only the approach roads for departmental action. Also that the Commissioners' Chief Engineer, Mr. McGlashan, should be allowed when on leave to offer the firm the benefit of his local knowledge and experience."

Hopes that a cantilever bridge may even yet be decided upon were revived by a speech made by H. E. the Governor of Bengal on July 12th, 1927, in which he said that—

" I should have been pleased if those responsible were able, after further consideration, to recommend a permanent and solid structure, as was suggested by the Committee presided over by Sir Rajendra Nath Mookerjee as the most suitable and, I believe, ultimately the most economical bridge that could be erected—of the cantilever type."

It is understood that the only way in which the admitted advantages of a cantilever bridge can be reconsidered is by the submission of proposals, officially or unofficially, in the Legislative Council for the amendment of the taxation clauses of the Act providing for additional revenue. It is known that H. E. the Governor would welcome a reconsideration of the whole matter, and therefore there is still a remote chance that Calcutta may still see the construction of a permanent and dignified structure worthy of the second city of the Empire.

The Grand Trunk Canal. — This question was remitted in April, 1927, to a special Committee appointed by the Governor of Bengal in Council to examine the anticipated revenue from the Grand Trunk Canal project in all its bearings, including the canal route and the harbours, and to report on the estimates of revenue and any matter relevant to a consideration thereof. The Committee will also scrutinise the proposals made in the report on the project so far as they relate to the acquisition of land and the revenue which is expected to be realised from the use or subsequent disposal of such land.

The whole project is, therefore, likely to remain in abeyance for a further considerable time.

CHAPTER VI.

Detailed Examination of the Leading Import Trades with Special Reference to Changes in the Character, Volume and Origin of the Imports during the Fiscal Year, April 1st, 1926, to March 31st, 1927.*

Note.—*Unless otherwise stated, the statistics in this section are drawn from the publications of the Department of Statistics, Government of India, and relate to imports on private account only. Since all Indian statistics are now given in rupees and not in sterling, and in view of the immense labour which would be involved in converting into sterling, the lakh of rupees (Rs.100,000 or £7,500 at 1s. 6d. exchange) has been taken as the usual unit. It is fully realised that this is not so convenient a unit as the £ sterling.*

MANUFACTURED AND MAINLY MANUFACTURED GOODS.

Cotton Textiles. — *Yarns.*—The total imports of cotton twist and yarns remained fairly steady so far as quantities are concerned, the aggregate being reduced from 51½ million lbs. in 1925/6 to 49½ million lbs. in 1926/7. The heavy fall in prices during the period is reflected in the reduction of the total value from 7¾ crores of rupees of 6½ crores of rupees. The reductions took place in grey 11's to 20's (roughly three and a half million lbs.), in grey 31's to 40's (three quarters of a million lbs.), and in coloured 31's to 40's (one and a quarter million lbs.). There was a considerably increased import of grey counts above 40's and of mercerised spinnings.

The following table gives the imports of grey yarns arranged according to counts:—

Counts.	1925/6. lbs.	1926/7. lbs.
Nos. 1 to 10	79,741	105,860
,, 11 to 20	4,223,718	677,476
,, 21 to 30...	583,447	430,723
,, 31 to 40	21,680,470	20,964,273
Above 40	6,168,291	7,425,172
Twofolds	5,221,864	6,151,161
Total Imports ...	37,957,531	35,754,665

The next table sets forth similar details of the imports of bleached, coloured and mercerised yarns:—

Description.	1925/6. lbs.	1926/7. lbs.
Bleached yarns	3,751,328	4,061,521
Coloured—		
Nos. 1 to 20	468,796	200,080
,, 21 to 30	535,150	509,188
,, 31 to 40	4,613,808	3,457,101
Above 40	516,547	742,928
Twofolds	972,787	458,921
Mercerised yarns	2,845,477	4,169,075
Unspecified descriptions	26,662	59,279
Grand total of all kinds of twist and yarn	51,688,086	49,412,758

* For a supplementary review of trade to September 30th, 1927, see Appendix IV., p. 254.

It is satisfactory to note that the share of the United Kingdom in the total trade rose from 16 to 20 million lbs., while that of Japan fell from 33½ to 26½ million lbs.

The following tables gives the details :—

Country of origin.	1925-26.		1926-27.	
	lbs.	Rs. (lakhs	lbs.	Rs. (lakhs)
United Kingdom	15,979,865	3,14	20,104,356	3,08
Netherlands	473,075	9	486,435	9
Switzerland	898,013	16	691,130	10
Italy	409,645	7	313,612	4
China (including Hongkong)	56,000	0,6	945,032	8
Japan	33,525,380	4,25	26,609,033	3,20
Other countries	346,108	5	263,160	3
Total Imports ...	51,688,086	7,76	49,412,758	6,62

The production of the Indian mills compared with the imports is clearly shown in the following statement :—

	Imports in lbs. (1,000).	Indian Mills. Production in lbs. (1,000).
Annual average for the 5 years 1909-10 to 1913-14	41,794	646,757
1923-24	44,574	617,328
1924-25	55,907	719,390
1925-26	51,688	686,427
1926-27	49,413	807,116

The subjoined table compares by counts the quantities of imported cotton twist and yarn with the quantities produced in Indian Mills :—

	1913-14 (pre-war year).		1923-24.		1924-25		1925-26.		1926-27.	
	Imports.	Pro-duction.	Imports.	Pro-duction.	Imports.	Pro-duction.	Imports.	Pro-duction.	Imports.	Pro-duction.
	lbs. (1,000)	lbs. (1,000)	lbs. (1,000)	lbs. (1,000)	lbs. (1,000)	lbs. (1,000)	lbs. (1,000)	lbs. (1,000)	lbs. (1,000)	lbs (1,000)
Cotton twist and yarn—										
Nos. 1 to 20	1,254	492,693	6,857	411,910	7,170	469,810	4,772	444,748	1,068	515,681
,, 21 to 25	896	123,995	473	124,601	477	154,672	543	142,759	483	168,345
,, 26 to 30	3,686	42,999	993	57,377	934	69,140	575	71,029	470	79,966
,, 31 to 40	23,657	19,712	19,807	19,667	27,687	19,368	26,294	19,738	24,405	27,657
Above No. 40	7,859	2,699	7,739	3,261	7,659	5,822	6,685	5,834	7,562	11,531
Grey and coloured two folds (doubles)	—	—	4,033	—	5,833	—	6,195	—	7,146	—
Unspecified descriptions and waste	6,819	679	4,673	513	6,147	578	6,624	2,319	8,291	3,936
Total	44,171	682,777	44,575	617,329	55,907	719,390	51,688	686,427	49,425	807,116

It will be remarked that in spite of the depressed conditions prevailing in the Bombay mill industry, the output of yarns in all-India increased by nearly 121 million lbs. to over 807 million lbs. The Bombay Millowners' Association in their Report for 1926 state that the average monthly stocks of yarn during the year were 41,500 bales, as compared with 44,083 bales in 1925. It should, however, be remembered that the average number of working spindles per day in 1926 was 2,860,076 as compared with 3,181,650 in 1925. The Association state that " following on the reduction in stocks caused by the stoppage of the mills in the last three months of 1925, the heavy accumulation of stocks during the year was of considerable anxiety to the Committee, although happily the position on the whole was not so dismal as in 1925. The advisability of adopting short time was considered in all its bearings at the general meeting of members held on 29th September, 1926, but although there appeared to be a general consensus of opinion in favour of curtailment of production, it was found impossible to devise a generally acceptable scheme for organised action." They add that " the position in the yarn market continued unsatisfactory throughout the year, except for a short period when in the middle of July there was a small demand from exporters for China, and there were hopes of good business being done. These hopes were not realised, and prices continued to decline with very poor off-take of stocks. The prices of 10's and 20's yarns, which were at the close of 1925 10¾ and 12¾ annas per lb., were at the close of 1926, 7 annas and 8¾ annas a lb., showing over the year a decline of about 4 annas, or nearly 33 per cent. But even this decline did not improve the situation. Stocks reached their highest point in April, since when there has been more or less a decline, which, however, is in great part due to the gradual stoppage of about one-sixth of the total spindles in Bombay."

In Table A, page 241, will be found a statement published by the Indian Tariff Board showing the production, imports and exports of yarn during the period 1899-1900 to 1925-1926. Table B, page 242, contains a statement also compiled by the Indian Tariff Board, which shows the progress made by the cotton mill industry in India between 1883/4 and 1924/5.

Piece Goods.—The following table shows the quantitative imports of the three main classes of piece goods for the last pre-war year and during the past four years :—

Year.	Grey (unbleached)	White (bleached)	Coloured, Printed or Dyed.
	Million yards.	Million yards.	Million yards.
1913-14	1,534·2	793·3	831·8
1923-24	704·0	415·3	347·5
1924-25	845·5	548·9	407·0
1925-26	709·1	465·1	365·8
1926-27	748·4	570·9	447·4

This should be studied in conjunction with the next statement, which gives the *value* of the three main classes in the last pre-war year and during the past four years :—

Year.	Grey (unbleached)	White (bleached)	Coloured, Printed or Dyed.
	£	£	£
*1913-14	16,966,515	9,523,204	11,907,683
*1923-24	15,376,473	10,296,306	11,789,829
*1924-25	18,992,655	13,487,904	13,343,973
†1925-26	16,415,418	11,994,909	11,940,876
†1926-27	14,712,768	13,220,371	12,916,839

*At exchange of 1/4 †At exchange of 1/6

The lower prices which ruled during the past year resulted in a noteworthy increase in the yardage, but it will be observed that the total yardage imported is still only 55 per cent. of that imported in 1913-14. The declared values per yard over the same series of years gives the clue to the present position.

Cotton piece goods.	1913-14.	1923-24.	1924-25.	1925-26.	1926-27.
	Rs. As. P.	Rs. As. P.	Rs. As. P.	Rs. As. P.	Rs. As. P.
Grey (unbleached)	0 2 8	0 5 3	0 5 5	0 4 11	0 4 2
White (bleached)	0 2 11	0 6 0	0 5 11	0 5 6	0 4 11
Coloured, printed or dyed ...	0 3 5	0 8 2	0 7 10	0 6 11	0 6 2

It has been repeatedly stated that the falling-off in the imports of cotton piece goods is roughly in inverse ratio to the increase in price. The effects of the fall in prices last year are reflected in the increased yardage imported. With a price index in Manchester on April 8th, 1927, of 133 for American yarn and 138 for cloth, it may be confidently expected that the imports during the present fiscal year will show a very marked increase in yardage of all styles.

VARIETIES OF PIECE GOODS IMPORTED.

	(pre-war year) 1913-14.	1924-5.	1925-6.	1926-7.
Grey (unbleached).	Million yds.	Million yds.	Million yds.	Million yds.
Dhutis, saris and scarves ...	806·1	489·9	430·1	471·6
Jaconets, madapollams, mulls, etc.	150·4	89·4	57·0	72·6
Longcloth and shirtings ...	545·4	206·7	171·3	168·8
Sheetings	·2	39·4	30·4	18·3
Drills and jeans	21·3	17·3	19·4	14·9
Other sorts	10·8	2·8	·9	2·2
Total	1,534·2	845·5	709·1	748·4

	(pre-war year) 1913-14.	1924-5.	1925-6.	1926-7.
White (bleached).	Million yds.	Million yds.	Million yds.	Million yds.
Dhutis, saris and scarves ...	104·3	68·9	72·6	114·0
Jaconets, madapollams, mulls, etc.	307·9	194·9	186·8	234·8
Longcloth and shirtings ...	115·3	122·7	93·8	97·4
Nainsooks	204·7	105·4	77·0	65·9
Drills and jeans	5·7	6·4	6·1	5·1
Checks, spots and stripes ...	16·1	11·0	7·0	12·3
Twills	8·3	13·3	12·2	11·8
Other sorts	31·0	26·3	9·6	29·7
Total	793·3	548·9	465·1	571·0

Coloured Printed or Dyed.	(pre-war year) 1913-24	1924-5.	1925-6.	1926-7.
	Million yds.	Million yds.	Million yds.	Million yds.
Dhutis, saris and scarves ...	115·2	46·0	29·9	35·5
Cambrics	113·6	44·5	34·7	43·2
Shirtings	152·6	69·3	72·5	90·8
Prints and chintz	209·7	59·5	56·1	50·5
Drills and jeans	30·0	25·4	32·4	44·9
Checks, spots and stripes ...	19·7	15·5	10·7	17·0
Twills	31·4	22·2	20·4	29·0
Other sorts	159·6	124·6	109·1	136·5
Total	831·8	407·0	365·8	447·4

The falling away in grey shirtings, the imports of which are only 31 per cent. of the 1913-14 figures is most striking, but the considerable purchases of British shirtings in the early months of

1927 should show an improvement in next year's returns. Bleached nainsooks are still only 32 per cent. of the pre-war imports due to the substitution of cheaper cloths owing to the price level being beyond the reach of consumers.

Perhaps the most alarming reduction is in the imports of prints and chintz, which have shrunk to only a quarter of the pre-war figure. This is largely to be accounted for by changes in fashion. Although purchases during the past few months have been on a much broader scale, it is to be feared that we must face a permanent reduction in the trade in low-quality prints, which was formerly such a feature of the markets in Northern India.

Sources of Imports.

(i) *Grey Goods.*

Countries of Consignment.	1925-6.		1926-7.	
	Yds.	Rs. (lakhs).	Yds.	Rs. (lakhs).
United Kingdom ...	561,391,190	17,08	588,781,540	15,24
China (including Hong-Kong)	2,264,223	7	1,790,000	4
Japan	142,609,046	4,61	154,865,422	4,23
United States	2,460,384	10	2,690,128	9
Total Imports (all sources)	709,085,401	21,89	748,410,976	19,62

It is satisfactory to note that Lancashire maintained her position during a most difficult year. The effects of the heavy purchases of grey dhooties and shirtings which were made during the first two months of 1927 are not fully apparent in the above figures, and a much better showing will be made in next year's report.

(2) *Bleached Goods.*

Countries of Consignment.	1925-6.		1926-7.	
	Yds.	Rs. (lakhs).	Yds.	Rs. (lakhs).
United Kingdom ...	446,265,725	15,09	550,284,568	16,67
Netherlands	6,327,910	30	5,955,971	25
Switzerland	5,803,737	32	8,643,416	45
Japan	4,674,567	16	2,881,728	9
Other countries	2,040,185	12	3,185,854	16
Total Imports ...	465,112,124	15,99	570,951,537	17,62

The British share of the trade is well maintained at 95 per cent. Imports from the Netherlands of white shirtings show a marked decline, while there has been a considerable increase in the arrivals from Switzerland of white jaconets, mulls and nainsooks, which are mostly embroidered and bleached in Switzerland on British grey cloth.

(3) *Coloured, Printed or Dyed.*—This heading is made up as follows :—

Description.	1925-6.		1926-7.	
	Yds.	Rs. (lakhs).	Yds.	Rs. (lakhs).
Printed goods	166,877,006	6,55	176,854,152	6,13
Dyed goods	106,870,740	4,88	156,984,887	6,17
Woven coloured goods ...	92,088,029	4,49	113,603,188	4,92
Total Imports ...	365,835,775	15,92	447,442,227	17,22

The decline in the print trade has been more than made up by increased imports of dyed goods. The provenance of the imports was as follows :—

Countries of Consignment.	1925-6.		1926-7.	
	Yds.	Rs. (lakhs).	Yds.	Rs. (lakhs).
United Kingdom ...	267,404,871	11,91	318,300,188	12,58
Germany	1,757,597	14	3,022,526	20
Netherlands	10,100,751	63	13,697,487	75
Belgium	949,614	10	2,171,294	19
Switzerland	1,547,375	13	3,155,209	23
Italy	9,807,059	58	15,550,975	70
Straits Settlements ...	3,083,845	22	3,297,968	20
Japan	69,542,141	2,11	85,821,800	2,25
Total Imports (all sources)	365,835,775	15,92	447,442,227	17,22

The share of the United Kingdom remained steady at 74 per cent., that of Japan at 13 per cent., and Italy increased her portion from 3½ to 4 per cent. The increased imports from Germany and adjacent countries are noteworthy.

(4) *Fents of all Descriptions.*

Countries of Consignment.	1925-6.		1926-7.	
	Yds.	Rs. (lakhs).	Yds.	Rs. (lakhs).
United Kingdom ...	11,645,772	43	9,507,913	35
United States	11,883,691	27	11,442,782	29
Other countries	150,683	—	188,933	1
Total Imports ...	23,680,146	70	21,139,628	65

American competition in fents is becoming very acute. This is to some extent due to the American attitude towards fents, which have hitherto been regarded in the United States of America as a waste product to be sold for what they will fetch. American

shippers have therefore sold their fents in India at prices much below British quotations. It is to be hoped that the large firms of bleachers, dyers and printers in the United Kingdom will recognise this in the future when selling their large stocks of fents to exporters.

Shares of the Principal Competitors in the total quantities of piece goods imported :—

Countries of Consignment.	1913-14.	1924-25.	1925-26.	1926-27.
United Kingdom ...	97·1	88·5	82·3	82·0
Japan	0·3	8·5	13·9	13·6
Holland	0·8	0·6	1·1	1·1
Italy	0·7	0·5	0·6	0·8
Switzerland	0·2	0·4	0·4	0·6
Other Countries ...	0·9	1·5	1·7	1·9
Total	100·0	100·0	100·0	100·0

The relative position of the United Kingdom vis-á-vis her principal competitor Japan remains practically unchanged, but it will be remarked that competition from the Continent shows a tendency to increase.

Indian Mill Competition.—The subjoined detailed statement gives the quantity (in pounds and their equivalent in yards) and description of the woven goods produced in Indian mills during the past three years. It will be noted that, in spite of the acute depression in Bombay and Ahmedabad, the total yardage produced in all-India rose from 1,954 millions in 1925-6 to 2,259 million in 1926-7. The increase of 305 million yards was principally made up of increased production of the following types of cloth :—

Grey Dhooties, an increase of 69 million yards.

Grey Shirtings and Longcloth, an increase of 59 million yards.

Coloured Piece goods, an increase of 141 million yards.

Ninety-nine million yards of Khaddar cloth were woven during the year. The total weight of cloth of all kinds rose from 465 to 539 millions pounds.

Description.		Twelve months, April to March. 1924-25.	1925-26.	1926-27.
Grey and Bleached piecegoods—				
Chadars ...	pounds	21,645,841	22,787,297	24,137,331
	yards	61,613,927	62,075,591	65,555,014
Dhutis	pounds	96,507,057	110,134,379	123,121,505
	yards	458,403,936	516,394,318	585,705,264
Drills and jeans	pounds	18,520,699	18,106,061	20,177,031
	yards	77,191,047	74,150,144	79,703,504
Cambrics and lawns	pounds	1,144,509	580,764	664,147
	yards	5,395,238	3,168,432	3,385,935
Printers ...	pounds	7,759,658	6,003,983	4,856,262
	yards	32,776,886	25,871,997	20,899,248
Shirtings and longcloths	pounds	118,058,747	120,019,866	134,771,543
	yards	525,524,427	521,125,944	580,536,303
Tcloth, domestics and sheetings	pounds	17,462,522	17,370,593	23,680,244
	yards	77,741,758	74,073,333	93,314,603
Tent-cloth ...	pounds	4,156,226	3,990,717	3,166,727
	yards	9,893,789	9,004,906	6,732,119
Khadi, Dungri or Khaddar	pounds	29,434,466	30,444,405	35,810,049
	yards	87,152,562	87,406,216	98,670,894
Other sorts ...	pounds	10,575,504	9,826,309	11,326,965
	yards	46,674,718	41,034,924	42,734,703
Total ...	pounds	325,265,229	339,265,174	381,711,804
	yards	1,382,368,288	1,414,305,805	1,577,237,587
Coloured piecegoods	pounds	125,563,183	116,695,300	145,320,359
	yards	588,030,950	540,156,845	681,477,373
Grey and coloured goods, other than piecegoods	pounds	2,952,221	3,726,511	4,151,302
	yards	610,985	955,804	1,006,548
Hosiery	pounds	673,221	872,861	1,118,190
	dozens	276,853	316,546	391,813
Miscellaneous ...	pounds	3,949,303	3,772,129	4,289,022
Cotton goods mixed with silk or wool	pounds	272,006	707,712	2,313,760
Grand Total ...	pounds	458,839,645	465,039,687	538,904,437
	yards	1,970,399,238	1,954,462,650	2,258,714,960
	dozens	887,838	1,272,350	1,398,361

The Committee of the Bombay Millowners' Association in their review of the year 1926 state :—

" The situation in the cloth market was perhaps only a little less gloomy than that of the yarn market, for there were at least two periods when there was a fair enquiry for cloths, though the rates were far from satisfactory. In the month of February there was a fair demand which, however, did not continue, and from March onwards stocks began to rise. It was not until September and October that the market again began to move, but unfortunately the decline in prices of American cotton afterwards arrested all further progress. The price of Standard Longcloth which was Rs.1—1—6 per lb. in the beginning of the year remained fairly steady till about April, though

the off-take was not satisfactory except for the month of February as stated above. With the decline in cotton prices in April the hesitancy to purchase cloths became more marked, and it was difficult to move stocks in spite of reduction in rates, Standard Longcloths being then nominally quoted at Rs.1—0—6. By the middle of October prices had further declined to about 15 annas, in sympathy with cotton which continually declined, when large sales were made at 14½ annas per pound on the Moorat occasion. The fall in prices did not, however, stop here, for with the continuance of the fall in cotton values on the one hand and imports of cheap Japanese goods on the other, it was difficult to sell cloth. The year closed with Standard Longcloth at 13½ annas per lb. at which unremunerative rate considerable sales were effected."

The average monthly stocks of Indian piece goods in Bombay during the year were 116,917 bales, as compared with 140,833 bales in 1925.

It must not be supposed, however, that conditions in Bombay are necessarily a criterion for the whole of India. The Indian Tariff Board have shown in their recent report on the Indian Cotton Industry that the present depression has been and is much more acutely felt in Bombay than in other centres, that mills which have spinning departments only have been affected to a greater extent than mills which have both spinning and weaving departments, and that the demand for protection has not been as earnestly pressed from other centres as from Bombay and Ahmedabad. In 1924-5, Bombay accounted for 28·8 per cent. of the number of mills working in all-India, 42·3 per cent. of the number of spindles and 47 per cent. of the number of looms. Of the Indian Mill production of yarn in millions of lbs., Bombay produced 45·5 per cent. and of the mill production of cloth in millions of lbs., Bombay accounted for 47·9 per cent.

Lancashire manufacturers and shippers would do well to study carefully the report of the Indian Tariff Board, which is a mine of information with regard to the facts of the Indian industry. The principal conclusions and recommendations are summarised on page 82, and it will suffice here to quote the following brief summary of the industry's development. The Committee state that:—

"The most striking feature which stands out from a survey of the cotton mill industry in India from the beginning of the present century to the commencement of the period of the present depression is its expansion in every direction, but more especially in weaving as compared with spinning. The expansion of spinning has been the result of the expansion of weaving rather than the reverse. While spindles increased by 50 per cent. in the 22 years surveyed, looms increased by 223 per cent. At the commencement of the period, the Indian mill production of cloth was only a little over one-fifth of the net imports, and about half of the production of the hand loom industry. At the end of the period, it was 77 per cent. greater than the one and 50 per cent. greater than the other. In 1899-1900 Indian mills supplied 9 per cent. of Indian requirements of cloth against 64 per cent. met by imports, and 27 per cent. by the hand loom industry. In 1921-1922 the percentages were 42, 26 and 32. This is on the assumption that the exports of Indian piecegoods were all of mill manufacture—an assumption which is not entirely warranted owing to the large exports of hand woven goods from Madras, but an allowance for these will only slightly affect the percentages. Other features hardly

less important are the loss of the export trade in yarn, the gradually decreasing dominance of Bombay in the home industry, which entirely disappeared in regard to grey goods, and the increasing share of Japan in the import trade."

Conditions in the Large Import Markets.

Calcutta.—A leading authority in the piece goods trade states:—

"The first three months of 1926 were marked by great activity. In April, on account of the communal riots, business came to a standstill, and a good deal of the enquiry from up-country was diverted to Bombay and Karachi. When the Calcutta bazaar re-opened it took some time to regain its position as the principal supplier of some mofussil markets. In May a certain amount of activity was witnessed, but the further communal riots depressed the market, and stocks started accumulating and bazaar prices declined.

In addition to the above the coal stoppage in England and the decline in American cotton interfered with the resumption of normal trading. As a result of the unhealthy state of the market the Members of the Marwari Chamber of Commerce resolved in July, 1926, not to indent for any goods for shipment ahead for a period of four months, but continued to buy goods which were on the spot. This eased the position towards the end of the year, and forward dealing were resumed, but very cautiously.

The beginning of 1927 was marked with a good deal of activity, and a large business was done for shipment ahead. The demand also for ready goods has been good, and so far consumption exceeded arrivals, with the result that stocks are now on the light side, but as arrivals during May, June and July are likely to be heavy, some accumulation is expected.

Dealers have made fair profits on the goods that have arrived so far this year, and as the Manchester prices are very firm, prospects are encouraging. The dealers, however, on account of the losses they have sustained for practically four years running are still nervous, and are inclined to be over cautions in their forward operations.

The following is a rough comparison of the level of bazaar prices based on a few standard qualities:—

Pre-war 1913–1914.	Highest reached during the interval.	Present.
100	400–450	170

Bombay.—A well-informed Bombay importer has supplied the following survey of conditions and prospects at that port:—

"The fiscal year 1926/7 has been a very depressing one for Bombay from a commercial point of view. All classes of business have suffered to a varying degree, but undoubtedly the hardest hit have been those connected with textiles, and in particular cotton piecegoods. This City has never really recovered from the slump of 1921, for although 1924/5 showed distinctly more promise, it encouraged buyers to commit themselves to an extent which, as later events have shown, has been largely responsible for the very precarious position in which many firms and individuals now find themselves. Demand in 1925/6 was below normal, and in the year under review this state of affairs has been accentuated. As compared with 1921 stocks in the Port Trust godowns have not been unduly heavy, and had enquiry materialised to an extent that might reasonably have been expected, they would not have been considered cumbersome, but the absence of buyers, coupled with a fall in values, has had an almost disastrous effect on many. At the commencement of the period the total stocks approximated 33,600 packages, whilst at the end the figure was under 30,000. During the intervening months the number had fluctuated, the peak being reached at the end of January with

40,300. The trouble lay not in the total so much as in the fact that these stocks have not been turned over as they should have been, and a very large proportion of them are dearly bought when compared with current replacement costs. It is not difficult to appreciate this when it is remembered that American cotton was quoted over 9½d. per lb. in Liverpool at the beginning of April, 1926, whilst the same grade could be purchased at under 6⅝d. early in December. By the end of March, 1927, 7½d. was the ruling rate, and this price has since advanced to the present quotation of 8¼d.

Apart from the financial stringency in the bazaar, the money market generally, although easier than is customary for some months, became very tight towards the last quarter of the year, and the difficulties of financing stocks were increased considerably with a 7 per cent. Bank Rate. Exchange, however, has been extremely steady, and the fixation of the rupee on the lines suggested by the Currency Commission restored the confidence of importers.

In reviewing piecegoods in more detail it is possible to clearly differentiate. Grey goods of Lancashire make have had an uphill fight throughout, and generally speaking have failed to hold their own. Rates ruling have indicated a weak tendency, and the business done has been confined almost entirely to replacements of a very few of the well established marks. White goods have also experienced a poor year. Demand for bleached styles having been proportionately less than for dyed, printed and fancy varieties and prices have ruled easy. The three last named have been in moderate retail request, and holders of these classes have probably not suffered to the same extent as those concerned in either Greys, Whites or Dhooties. Continental goods continue to make headway, particularly Italian makes, although the recent appreciation of the lira has had a somewhat quietening effect. France has had a very large share of the woollen business, much to the disadvantage of Bradford, whose prices have appeared high as compared with French quotations. The woollen business during the past season has, however, been on a much reduced scale owing to a sufficiency of stocks, and the volume of new business booked and at present in production is below normal.

Many weak piecegoods dealers have already been weeded out, and more will follow. This should be to the ultimate good of the trade generally. American cotton and Lancashire prices are firm. Stocks in Bombay are not excessive. Dealers are making small margins on present arrivals, and further are only replacing with extreme caution. Weighing up the situation from all points it can safely be said that prospects are brighter now than they have been for many months. It will still be some time before we can expect a resumption of fair average trading, but it will follow, always providing that we have no further set-backs."

Karachi.—The following report was sent to me in May by an experienced Karachi correspondent :—

" Throughout the year 1926 a consistently good demand was maintained for piecegoods in the Karachi market. Chief among the causes to which this may be attributed were firstly the comparatively low stocks held by the market at the close of the preceding year both at the Port and up-country, and secondly, the prosperous state of the agricultural classes in the Punjab and a better demand from consuming centres.

Up-country markets, generally, showed a healthy consumptive demand and clearances throughout the year were very brisk.

The following figures, showing importations for the last few years, give some idea of the increase in trade to this port :—

1926	April	—	March	1927.	Total Pkgs.	177,500
1925	,,		,,	1926.	,, ,,	127,100
1924	,,		,,	1925.	,, ,,	160,300
1923	,,		,,	1924.	,, ,,	89,800
1922	,,		,,	1923.	,, ,,	95,600

Considering the long endured coal stoppage at home the shipments during the year may be said to have been exceptionally good.

A noteworthy fact of the year under review is that the consistent drop in cotton—which was one of the features of the year—did not have the effect of penalising dealers too severely, as they all along made special efforts to let their goods get into consumption with the least possible delay.

Despite this decline in the raw article practically no failures occurred among piecegoods buyers.

Early in September the floods that occurred after very heavy rains, caused serious damage to goods in the hands of the importers and also to a smaller extent to those in dealers' shops. With the opening of the new year 1927, further brisk demand was evinced all round and clearances for January to March by far surpassed all previous records. In view of the present undecided state of the market at Home, however, buyers are acting cautiously and show little inclination to commit themselves for the far forward shipments quoted.

During the above period foreign competition from Japan was more than ever felt by home shippers in the heavier Grey Shirting styles, and in comparison with previous years, Manchester qualities in this style were barely represented in the market.

Italian Houses also made fair headway with low printed qualities, for the most part suggestive in design of old Manchester Standards, and also in Sundry Cloths (comprising principally Art Silk Fancies, and to a lesser degree Flannels and Woollens)."

Another correspondent adds under date of May 20th, 1927 :—

Stocks.—" I estimate these at about 40,000 packages, and there are probably about 30,000 to arrive. This is more than adequate for the moment, but it is expected that the market will have no difficulty in effecting consumption of these goods, as very little business indeed has been done for shipment after May."

Prospects.—" If Manchester remains steady the stocks here will be exhausted in about three months. The general opinion is that buying for forward shipment will be resumed in July, and that the outlook is favourable. This year the dealers have undoubtedly made profits."

The Punjab.—" Stocks are not heavy, and the prospects are regarded as being good."

Madras.—An authority writes :—

" April, 1925, to March, 1926, was a year of falling prices both for Egyptian and American cotton goods, and each time when bottom seemed to be reached a fresh fall occurred. Dealers and importers were continually selling at a loss to compete with cheaper goods to arrive. Money was lost all round, and importations of piecegoods and yarns were about 10 per cent. less in quantity than during the previous period 1924/25.

Thus 1926/27 opened badly. Prices for cotton and cloth were some 60 to 70 per cent. over pre-war rates, and price tendency was downwards so neither importers nor dealers felt happy with their stocks, and in this market small dealers were continually under-cutting each other to clear their stocks lest worse should befall. In the early months of the year cotton gradually declined and reached 9½d., which seemed reasonably safe, and a fair business was done May/July, which left the Madras market well supplied. About September, however, the shadow of a huge crop hung over the market, and American cotton fell almost to pre-war price, i.e., from 10d. in August to 6½d. in December. With fair stocks available dealers, who in a falling market will never believe that the bottom has been reached, bought very hesitatingly notwithstanding the low rate of cotton which the grower assured us was less than the cost of production. Now that cotton is back to 8½d

they are regretting the chance missed. Judging from the Manchester papers, however, a good volume of business was put through for Madras, and also for the Northern Indian ports between October and December/January. It was probably on own account by the larger importing houses who looked well ahead. The present position is therefore a healthy one with moderate stocks and high replacing costs which should enable both importers and local dealers to make profits.

Import of yarns to Madras in 1926/27 were in quantity some 20 per cent. higher than 1925/26 though values were lower. Piecegoods were in much the same position, for there also quantities have increased by about 20 per cent.

This is the present position to-day, but regarding the future everything will depend on the next American crop. Till August, when something more definite will be known about the acreage, there is not likely to be anything but hand to mouth buying by dealers and importers, and unless the new crop runs large the chances seem to be that we shall have a steady piecegoods market at about present prices."

Delhi.—A banker writes as follows :—

" The year opened with fairly good buyers in the market, although the prices realised were hardly remunerative. Sales have continued satisfactory throughout the year, and dealers are now very cautious buyers.

Cotton prices towards the end of the year rendered forward business extremely difficult, and had a depressing effect on the market. The result of the year has been unsatisfactory from the importers' point of view, and we hear that a number of dealers have, in view of the continued losses in indented goods, resolved to stop forward buying altogether, and to fill their requirements locally or by buying ready from Calcutta, Bombay or Karachi, according to their requirements.

An outstanding feature of the market has been the steady increase in the demand for local and Italian made cotton goods and for French Woollen shirtings. This last named article has rather adversely affected the Yorkshire trade with this country."

Amritsar.—A banking correspondent writes as follows (June 7th, 1927) :—

" During 1926 White Goods such as White Shirtings, Mulls, Brocades, Italians, Satins, etc., suffered a depreciation of about 30 per cent. Since the beginning of 1927 a further depreciation of about 5 per cent. has taken place.

Business in woollen goods has been done on a smaller scale than usual owing to competition from the Continent. The principal dealers in metals and hardware in this market have their own offices in Karachi, through which port the goods are imported, and no real data concerning this business is therefore available to us here.

The chief articles imported as sundries were cotton and artificial silk embroideries, laces, etc., and importers of those articles have had to face a depreciation in values amounting to about 20 per cent.

Other articles imported consisted of Berlin wool, artificial silk yarn, shawl borders, etc., which show a depreciation during the period under review of 10 per cent. to 20 per cent.

Recently home and local prices of most varieties of piecegoods have been out of touch, and little fresh business has been done. Consequently clearances have been good, and stocks are running down to a satisfactory level."

Cawnpore.—I am informed that, although Cawnpore is gradually losing its importance as a distributing centre in favour of Delhi and Amritsar, business during the past year has been fairly well maintained. Owing to the fall in cotton, dealers made losses

on their earlier purchases, and consequently were rather shy at booking forward business towards the end of the year, thereby missing the Manchester market. Stocks in the market are moderate, and the outlook is quite good.

General Forecast (June, 1927).—From the above reports, all of which have been received from reliable authorities, it will be observed that a spirit of optimism prevails with regard to the future. Stocks of imported goods throughout the country are light, dealers are making profits on the purchases made in December-January-February last and, in many cases, the goods are being cleared from the docks straight into consumption. The present firmness in Manchester prices prevents the possibility of their being undersold by more recently bought goods, and it is expected that there will be heavy purchases made in July-August for the usual November-December-January shipment, unless a further rise in the Manchester market places Home quotations above Indian limits, in which case India will defer making any purchases until the latest date it is possible to secure January-March shipment.

The general factors are all favourable. The political horizon is clearer than it has been for very many years, and although considerable communal tension exists, the dangerous periods of the year have passed without serious rioting. The fixing of the exchange at 1s. 6d. gives confidence to operators and eliminates that uncertainty, which has been such a marked feature since the war.

The first official monsoon forecast was issued on June 7th, and predicts that the monsoon rainfall is likely to be normal, or in excess in the peninsula and north-west India and normal in north-east India. This is as favourable a forecast as is ever issued by the Meteorological Department, and it may safely be anticipated that the rainfall this year will be adequate, and that, for the fifth year in succession, India will be blessed with abundant harvests and consequent prosperity to the cultivators.

As I have repeatedly emphasised in previous reports, there is a considerable reserve of purchasing power in the country, resulting from a series of generally prosperous years, which would be translated into heavy purchases of the necessities of life when prices reach a workable level, and there is confidence in their stability. The heavy buying of piece goods in December-January-February last was only checked by the rise of Manchester prices. Similarly, the considerable volume of enquiry for India during May largely failed to materalise owing to the increased rates for yarn fixed by the Cotton Yarn Association. There seems to be little doubt that with the price index of cloth at about 140 to 150, Lancashire prices are well within the reach of buyers in India, and a large trade should result when operators feel sufficient confidence in the future of rates. The fact that importers in every market in India have made profits on their purchases made early this year will do more

to stimulate demand than almost any other factor, and I am distinctly hopeful that before this report is published there will have been a very large volume of business booked in every branch of the trade for November-December shipment.

Raw Cotton. — The following statement, taken from the Indian Trade Journal, compares the estimate of the total outturn of cotton in India for the last two years with the sum of exports and internal consumption. The figures of mill consumption are those supplied by the Indian Central Cotton Committee, and refer in the case of mills in British provinces to Indian cotton alone. The estimate of mill consumption in Indian States refers to all cotton, but the proportion of foreign cotton used is not likely to have been large during these two years. Import figures have not, therefore, been taken into consideration for the purposes of the comparison set forth below. A conventional estimate has been made for extra factory or local consumption. It should be borne in mind that estimates of the " Carry-over " from one year to another have not been taken into account owing to complete information not being available regarding stocks.*

	Year ending 31st August.	
	1926. Thousand bales (400 lbs.)	1925. Thousand bales (400 lbs.)
Exports to United Kingdom	153	216
,, to Continent (Europe, excluding United Kingdom)	1,034	1,245
,, to Far East	2,550	2,490
,, other countries	38	47
Total	3,775	3,998
Home consumption—		
Mills†	1,983	2,175
Extra-factory or local‡	750	750
Total	2,733	2,925
Approximate crop	6,508	6,923
Estimated (in forecast)	6,250	6,088
Excess (+) or deficit (−) neglecting carry-over ...	+258	+835

The next statement shows the stocks of cotton held by Indian mills on 1st August, 1926, and on 1st February, 1927 (in bales regardless of weight), and is published by the Bombay Millowners' Association :—

*Stocks of cotton in Bombay were 504,000 bales on 31st August, 1925. and 387,000 bales on 31st August, 1926.

†The figure of mill consumption is that compiled by the Indian Central Cotton Committee, Bombay, on the basis of returns made under the Indian Cotton Cess Act.

‡Conventional estimates.

	Bombay City and Island.		All-India.	
	1-8-26.	1-2-27.	1-8-26.	1-2-27.
Cotton Mill Stocks (in actual bales regardless of weight)—				
(*a*) American (linters and waste not included)	6,405	14,646	8,106	25,318
(*b*) East India	177,556	99,650	606,827	436,041
(*c*) Egyptian	1,392	1,557	2,918	2,439
(*d*) Sundries	3,017	4,111	12,335	9,666
Total	188,370	119,964	630,186	473,464

Figures from the cotton census taken at the instance of the International Federation of Master Cotton Spinners' and Manufacturers' Association.

The Bombay Millowners' Association, in their Annual Report for 1926, state that, except for a short period in July when the price of raw cotton on the New York market reached 18 cents per lb., the Bombay market has consistently been costlier, and this has been reflected by the smaller purchases made by exporters. Actual consumers of Indian cotton have also found it profitable to cover their requirements to a considerable extent with low grade Americans which have been sold at very tempting prices. Indian mills are reported to have made very large purchases of these cottons.

This tendency is shown in the following table of the imports of raw cotton into India during the past two years :—

Countries of consignment.	1925-6.		1926-7.	
	Tons.	Rs. (lakhs).	Tons.	Rs. (lakhs).
United Kingdom	206	3	5,003	45
Persia	1,132	14	1,136	12
Egypt	73	2	262	3
Kenya Colony	15,696	3,37	12,681	2,12
Tanganyika	227	5	780	13
United States	103	2	25,039	2,11
Total Imports (all sources) ...	17,543	3,64	45,676	5,03

The imports from the United Kingdom represent American cotton shipped from Liverpool, while those from Kenya Colony are, in the main, cottons of the Egyptian type grown in Uganda, and are largely re-exported to Europe. It will be noted that the imports of American cotton aggregate over 2½ crores of rupees in value.

The reduction in the margin between the price levels of American and Indian cotton until it was entirely eliminated last year has a most important bearing on the capacity of Indian mills to com-

pete with Lancashire products. I would refer readers to an interesting paper read by the Indian Trade Commissioner in London before the East India Association on February 14th, 1927, in which he develops this question and gives some most useful figures. Mr. Lindsay sums up the situation in the following terms :—

" The depression from which the Indian mills are suffering to-day is due to two important factors—firstly, the margin between the prices of Indian and American cottons is very narrow; and, secondly, as the American cotton prices have fallen the finer goods have, naturally, also fallen in price, and are again coming within the purchasing power of India's middle classes."

Cotton Sewing Thread.—The imports were as follows:—

Countries of origin.	1925-6.		1926-7.	
	lbs.	Rs. (lakhs).	lbs.	Rs. (lakhs).
United Kingdom	1,713,459	75	1,711,226	66
Other countries	440,568	9	346,145	8
Total Imports. ...	2,154,027	84	2,057,371	74

Competition from Austria and Germany has increased steadily since the war in the cheaper types of sewing cottons, and the British share has fallen to 83 per cent.

Artificial Silk. — *Yarns.*—The imports of artificial silk yarns are increasing at a rapid rate as the import statistics clearly show :

Principal countries of consignment.	1925-6.		1926-7.	
	lbs.	Rs. (lakhs).	lbs.	Rs. (lakhs).
United Kingdom	760,957	24	654,617	14
Germany	157,364	5	232,079	4
Netherlands	129,790	4	358,287	7
Belgium	120,436	3	57,989	1
Italy	1,309,257	34	3,843,179	64
Other countries	193,186	5	629,946	12
Total Imports ...	2,670,990	75	5,776,097	1,02

The phenomenal increase in the imports from Italy coinciding with a reduction in the imports of British yarn is most disturbing. One of the leading importers states, however, that the current year will give a more correct indication of the actual position inasmuch as the large stocks of Continental yarn which were lying unsold have now been disposed of. Moreover, the Indian cotton mills have lately become consumers in rapidly increasing quantities of artificial silk yarns of the better qualities in which the United Kingdom specialises, for use as warps in mixture cloths.

Hitherto, most of the yarns imported have been used by the handloom weavers in northern India and Madras, who are usually

indifferent to quality, and whose main desideratum is low price. This accounts for the large consumption of cheap Italian and other Continental yarns. Indian millowners, however, are now taking a keen interest in the production of cotton and artificial silk mixtures, and as they are much more particular with regard to quality, it is expected that the share of the British product will tend to increase. Moreover, the rapid increase in the number of British factories producing silk yarns during the past year should shortly tend to increased exports.

Piecegoods of Cotton and Artificial Silk.—

Principal countries of consignment.	1925-26.		1926-27.	
	yds.	Rs. (lakhs).	yds.	Rs. (lakhs).
United Kingdom	6,512,918	58	15,978,929	1,17
Germany	554,286	7	2,487,541	27
Belgium	319,139	3	979,974	8
Switzerland	2,317,383	25	6,697,960	59
Italy	4,978,133	37	13,900,507	81
Other countries	680,143	7	1,933,363	17
Total	15,362,002	1,37	41,978,274	3,09

The British share of the yardage imported has fallen from 42 to 38 per cent., while the Italian contribution rose slightly from 32 to 33 per cent.

There would appear to be two distinct classes of consumers of artificial silk piecegoods in India. The great majority have limited means, and do not trouble much about quality. They are attracted by lustre and bright colours and by the relatively low price of the Continental products. The remainder, who, unfortunately, are much less numerous, take quality into consideration and are willing and able to pay the higher rates charged. The greater proportion of the goods imported are sold on price and price alone, which accounts for the increasing imports from Italy and Switzerland which are, generally speaking, sold at a much lower price than the British products.

There appears to be no reason why British manufacturers should not be able to obtain a much larger share of the business if only they can bring down their prices. The British product is acknowledged to be superior, but this fact is not fully realised by the average Indian buyer. The trade is so new that he neither knows nor cares in which country the material is manufactured, but if it is cheap and made up in attractive designs and colours, he will buy. Some of the small shopkeepers assert that they frequently have Continental artificial silk cloths brought back to them after a few days' wear, with the complaint that the colours are not fast in water. This, of course, militates against the

development of the trade. A systematic and energetic propaganda in favour of British artificial silk goods of quality would do much to allay this prejudice.

The trade is likely to be a rapidly expanding one, and will help to redress the balance caused by reduced imports of the coarser cotton goods. It is to be hoped that British manufacturers and shippers will realise the significance of this, and that they will leave no stone unturned in their efforts to secure a much larger share of the trade.

Exhaustive reports on the market have been made by H.M. Trade Commissioners at Calcutta and Bombay, which are available to bonafide British firms on application to the Department of Overseas Trade.

Flax Manufactures. — The main types imported were as follows :—

Description.	1925-26. Rs. (lakhs).	1926-27. Rs. (lakhs).
Twist and yarn	1	—
Canvas	16	17
Piecegoods...	4	4
Sewing thread	3	2
Other sorts, including bags and sacks ...	8	8
Total Imports	32	31

Details of the origin of the imports in 1926-7 are not yet available. In 1925-6 the United Kingdom supplied 97 per cent. of the whole trade, the balance consisting of Rs.32,000 of flax canvas from Italy and Rs.33,000 of miscellaneous flax manufactures from Japan.

Jute Manufactures.—There was a considerable decline in the imports under this heading during the period under review. The figures are as follows :—

Countries of consignment.	1925-26. Rs. (lakhs).	1926-27. Rs. (lakhs.)
United Kingdom	13	10
Ceylon	17	14
Other countries	20	16
Total	50	40

The United Kingdom in 1925-6 supplied 30 per cent. of the gunny cloth imported, but serious competition was met with from Japan, Belgium, Germany and Italy. The considerable imports of gunny bags are mainly drawn from Ceylon, and consist largely of secondhand cornsacks re-exported from Australia and transhipped at Colombo. Imports of canvas are almost entirely drawn from the United Kingdom.

Silk Manufactures. — The total imports of raw silk and silk manufactures aggregates over 4 crores in value. The imports of the various types were as follows :—

Description.	1925-26. Rs. (lakhs).	1926-27. Rs. (lakhs).
Raw silk	94	114
Silk yarns, noils and warps	35	63
Goods of silk mixed with other materials	25	31
Silk piecegoods	212	243
Sewing thread	2	2
Other kinds	6	6
Total Imports	374	459

Of the yarns, noils, warps, etc., Italy contributed 33 per cent., China 23 per cent., and Switzerland 20 per cent. Silk mixtures were obtained from Japan (36 per cent.), Germany (24 per cent.), the United Kingdom (10 per cent.), France (10 per cent.), and Italy (8 per cent.). Silk piecegoods are almost entirely drawn from China and Japan.

The United Kingdom supplied 57 per cent. of the small quantity of sewing silk imported, the principal competitor being Japan. Bombay is the principal silk mart, and Rangoon also takes considerable quantities.

Woollen Manufactures.—The various types imported were as follows:—

Description.	1925-26. Rs. (lakhs).	1926-27. Rs. (lakhs).
Yarns and knitting wool...	37	28
Blankets	12	11
Braids	0·7	0·4
Carpets and rugs	30	39
Hosiery	21	19
Piecegoods...	292	277
Shawls	28	37
Other sorts	3	3
Total Imports	423·7	414·4

Bombay is the principal port of entry for woollen manufactures, and distributes throughout the Punjab, United Provinces and North-Western India. Karachi is the entrepot for Afghanistan, Baluchistan, Punjab and the North-West Frontier Province. Large quantities also enter Rangoon in transit to Yünnan and the Shan States. The Calcutta market is also of increasing importance.

Woollen Piece Goods.—After a period of steady expansion, the imports last year received a slight setback. The subjoined table gives their origin:—

Principal countries of consignment.	1925-26.		1926-27.	
	yds.	Rs. (lakhs).	yds.	Rs. (lakhs).
United Kingdom	5,281,622	150	5,982,568	142
Germany	978,363	24	1,392,356	30
Netherlands	154,742	6	172,748	6
Belgium	1,252,621	22	726,863	14
France	1,902,389	34	2,237,823	37
Italy	28,53,900	34	3,575,139	35
Japan	2,061,368	20	1,230,361	10
Other countries	90,551	2	107,163	3
Total Imports ...	14,575,556	2,92	15,425,021	2,77

The fall in prices is clearly shown in the reduction of the average value per yard from Rs.2 in 1925-26 to Rs.1-12 in 1926-27. The total quantities imported are still far below the pre-war average, which was 22,420,000 yards valued at 207 lakhs of rupees. The post-war rise in the price of woollen goods has resulted in a substitution of the cheaper Italian, French and German cloths for the higher grade British qualities. A comparison of the quantities and values shipped by each country clearly shows this and explains the relative decline of the British share.

Woollen Shawls.—The shawl trade increases steadily each year, although it is still well below the pre-war average of 1,668,000 shawls valued at Rs.41½ lakhs. The latest figures are as follows :—

Countries of consignment.	1925-26.		1926-27.	
	Number.	Rs. (lakhs).	Number.	Rs. (lakhs).
United Kingdom	171,098	8	172,805	7
Germany	234,301	15	360,754	18
Other countries	164,817	5	445,932	12
Total Imports	570,216	28	979,491	37

The British shipments to India have remained stationary during the past three years, while Germany is rapidly regaining her pre-war predominance in this line owing to the greater demand for the cheaper qualities. The competition from other countries is mainly that of Italy.

Carpets and rugs.—The total trade is steadily expanding.

Principal countries of consignment.	1925-26. Rs. (lakhs).	1926-27. Rs. (lakhs).
United Kingdom	13·5	11
Italy	11·5	22
Persia	2	3
Other countries	3	3
Total Imports	30	39

Italian competition is almost entirely in the cheap printed tapestry rugs which are imported in large numbers into Bombay and Karachi.

Machinery and Millwork. — The steady decline in the imports of machinery, which has been such a notable feature of the past five years, continues, and the total trade was reduced by 1¼ crores of rupees due to further reductions in the imports of textile machinery and a falling-off in the imports of boilers. The acute depression in the Bombay and Ahmedabad cotton industry continues, and the general engineering industries of India were far from busy during the year. It would appear, however, that the low water mark has probably been reached, and I look forward to an improvement in the coming year. The following table shows the origin of the imports during the past two years :—

Countries of consignment.	1925-26. Rs. (lakhs).	1926-27. Rs. (lakhs).
United Kingdom	11,87	10,66
Germany	86	95
Belgium	30	25
United States	1,41	1,39
Other countries	44	38
Total	14,88	13,63

The next table shows the relative importance of the three principal suppliers before the war and during the past two years :—

Countries of consignment.	1913-14.	1925-26.	1926-27.
	Per cent.	Per cent.	Per cent.
United Kingdom	90	79·4	77·9
United States	3	9·6	10·2
Germany	6	6·0	7·0
Other countries	1	5·0	4·6
	100·0	100·0	100·0

The reduction of the British share is mainly due to diminished imports of textile machinery and boilers, in the supply of which the United Kingdom has hitherto enjoyed almost a monopoly. American and German competition in industrial plant of all kinds is becoming more insistent, and the establishment by foreign competitors of branches and agencies in India is bound to give a stimulus to their sales. There will always be a demand from Indian sources for cheap plant where low first cost rather than quality and efficiency is the desideratum. This will probably be more and more supplied by our competitors. The British machinery manufacturer, however, enjoys a very high reputation in the market, his selling and technical organisation in the country is second to none, and I look forward to his being able to maintain his position in the

future when trade improves and Indian purchases of industrial plant of all kinds recover from the recent depression.

The following brief analysis of the principal types of machinery imported will be of interest :—

TEXTILE MACHINERY.

	1924-25. Rs. (lakhs).	1925-26. Rs. (lakhs).	1926-27. Rs. (lakhs).
Cotton spinning machinery ...	1,51	1,21	80
,, weaving machinery ...	69	64	60
,, bleaching and dyeing machinery ...	8	4	3
,, printing machinery ...	(*a*)	(*a*)	(*a*)
Other sorts	39	46	27
Total	2,67	2,35	1,70

(*a*) Less than 1 lakh.

Lancashire textile machinists still retain over 95 per cent. of the trade. American and German competition is only met with in certain specialities such as patent winders, etc.

Woollen Manufacturing Machinery. — The few important woollen mills in India brought their plans up to date at the close of the war, and there have been no new concerns floated during the past two years. More machinery is, however, being laid down to enable them to cater more completely for Indian Government requirements, and this probably accounts for the increased imports during the past year. The figures of total imports were :—

1924-25.	1925-26.	1926-27.
Rs. 6 lakhs.	Rs. 2 lakhs.	Rs. 4 lakhs.

Jute Manufacturing Machinery.—The imports during the past three years have been as follows :—

	1924-25.	1925-26.	1926-27.
Rs. lakhs	93	82	65

There has been a steady fall in the imports since 1921-2. The Calcutta mills enjoyed a period of unprecented prosperity during and immediately after the war, and brought their plants up to a perfect state of equipment by 1921-2. Since that time, no new mills have been floated, and the state of the industry has not warranted a large outlay on new plant. The trade is almost entirely in British hands. In 1925-6 the U.S.A. supplied about £7,000 of specialities out of a total import of over £600,000. The two British firms of jute machinery manufacturers, who erected works in India at the end of the war, have closed them down.

Electrical Machinery.—The total imports were as follows :—

Countries of consignment.	1924-25. Rs. (lakhs).	1925-26. Rs. (lakhs).	1926-27. Rs. (lakhs).
United Kingdom	1,77	1,84	1,86
Germany	4	9	11
U.S.A.	15	20	23
Other countries	6	9	10
Total	2,02	2,22	2,30

It is satisfactory that British manufacturers have been able to hold their own against such formidable competitors as the German and American groups, all of which have active branches in the country. Competition, however, has been so keen that orders for large power plants are regularly taken at prices which show little if any profit, and there would appear to be little prospect of any amelioration so long as foreign competition is so keen. I would once again refer to the splendid service given by the branches and agencies in India of the leading British electrical concerns, which has been directly responsible for so large a proportion of the trade remaining in British hands, and presents an example which certain other British makers of machinery would do well to follow.

The following were the main types of electrical plant imported during the year :—

	1925-26. Rs. (lakhs).	1926-27. Rs. (lakhs).
Control and switchgear	36	32
Generators, alternators and dynamos ...	42	49
Motors	35	29
Transformers	18	23
Turbo-generating sets	28	8
Other sorts	63	86
	2,22	2,27

The demand in India for electrical machinery is likely to increase during the next few years owing to the increased utilisation of electrical energy as the country develops, and also to the important schemes of railway electrification which are either in progress or projected.

Boilers.—The imports were as follows :—

Countries of consignment.	1924-25. Rs. (lakhs).	1925-26. Rs. (lakhs).	1926-27. Rs. (lakhs).
United Kingdom	69·63	87·22	59·03
Germany	0·93	6·24	1·48
Other countries	1·63	4·52	2·25
Total	72·19	97·98	62·76

The industrial depression of the last five years has been clearly reflected in the reduced imports of boilers. It is satisfactory, however, to note that British makers still retain their predominant position. They are so strongly represented that they will probably be the first to gain from a revival in demand.

Prime Movers (other than Electrical).—The total imports were classified as follows :—

	1925-26. Rupees.	1926-27. Rupees.
Locomotives—excluding those for Railways—		
Oil engines	3,42,591	1,96,122
Oil engines (parts of)	39,260	54,522
Steam engines	22,87,161	27,87,974
Steam engines (parts of) ...	6,47,095	7,23,278
Others	4,48,773	1,27,273
Other than Locomotives.		
Gas engines	5,26,972	2,09,550
Gas engines (parts of)	98,961	1,01,309
Oil engines	95,63,809	96,29,418
Oil engines (parts of)	15,07,941	15,78,801
Steam engines	41,42,368	27,51,017
Steam engines (parts of) ...	13,35,522	15,60,929
Others	2,91,491	1,04,822
Total	2,12,31,944	1,98,25,015

Particulars of the origin of the imports in 1926-7 are not yet available, but it is safe to say that British makers control from 85 to 90 per cent. of the trade. One of the most noteworthy features of Indian development of late years has been the enormously increased use of oil engines which are largely displacing steam and gas engines. Slight competition from Germany, the United States and Italy is met with in oil engines, but in steam and gas engines the British makers control the market. The strength of the British position is due firstly to the inherent excellence of the machines, and secondly to the admirable system of representation by branches or technical agents.

Agricultural Machinery.—The trade has remained practically stationary during the year, as the following figures show :—

	1924-25. Rupees.	1925-26. Rupees.	1926-27. Rupees.
Agricultural tractors and parts ...	3,96,305	4,26,675	3,35,604
Ploughs and parts	83,521	1,72,045	3,00,297
Other sorts	3,49,906	5,92,527	4,88,599
Total Imports	8,29,732	11,91,247	11,24,500

In 1925-6, seventy-six per cent. of the tractors and sixty per cent. of the ploughs were obtained from the United States. The International Harvester Company of America have been very active for some years. In miscellaneous agricultural implements the United Kingdom supplied eighty-five per cent.

The Indian market for agricultural machinery and implements has hitherto been most disappointing. British makers during the last twenty years have spent considerable sums and great effort in designing and manufacturing implements suited to Indian conditions. In most cases, when the implements were found to be suitable, they were copied by local producers at a fraction of the price. Space does not permit of a full treatment of the question here, but British makers who may be interested would do well to consult the Department of Overseas Trade, who are well acquainted with the position. The only solution of the problem would appear to be the extension of the activities of Government Agricultural Departments in the stocking and distribution of improved implements. To effect this, greatly increased grants of funds will have to be made to them, and a considerable increase of staff will be entailed. It is hoped that the recommendations of the Indian Agricultural Commission, which is now sitting, will expedite a solution of this problem, which is one of the most pressing agricultural questions of the day.

Mining Machinery.

Countries of consignment.	1924-25. Rs. (lakhs).	1925-26. Rs. (lakhs).	1926-27. Rs. (lakhs).
United Kingdom	82	51	37
Germany	(*a*)	7	16
Belgium	—	21	15
U.S.A.	40	44	30
Other countries	3	1	(*a*)
Total	1,25	1,24	98

(*a*) Less than 1 lakh.

The falling-off in the imports of British mining machinery is noteworthy. During 1925-6 the great bulk of the mining machinery entered India through Rangoon and Karachi, which points to extensions in plant for the oil-fields, in which American competition is very keen.

Metal Working Machinery (including Machine Tools).—The trade fell slightly during the year.

	1924-25.	1925-26.	1926-27.
Rupees	36,76,134	44,00,338	37,48,096

This heading consists mainly of machine tools. In 1925-6 the United Kingdom supplied 74 per cent., the United States 14 per cent., and Germany 8 per cent.

Oil Crushing and Refining Machinery.—The following are the latest figures :—

Country of origin.	1924-25. Rs. (lakhs).	1925-26. Rs. (lakhs).	1926-27. Rs. (lakhs).
United Kingdom	11	11	22
Germany	7	5	6
U.S.A.	11	5	3
Other countries	1	(*a*)	2
Total	30	21	33

(*a*) Less than 1 lakh.

Calcutta is the principal port of entry. Burma is also a valuable market.

Paper Mill Machinery.—There has been a slight improvement in this trade, probably owing to the depression in the paper industry being removed by the protective tariff on certain types of paper. The figures are :—

	1924-25.	1925-26.	1926-27.
Rupees	7,21,170	3,36,029	6,69,485

Details of the imports are not yet available, but in 1925-6 the United Kingdom supplied 87 per cent., and only a very small quantity was received from Germany. If the capital is secured for the large new paper mill in the Punjab, we may expect to see a large increase in British imports next year.

Refrigerating Machinery.—The trade shows a steady increase—

	1924-25.	1925-26.	1926-27.
Rupees	7,19,864	8,31,507	11,70,738

In 1925-6 the United Kingdom only supplied 29 per cent. and the United States 60 per cent. American competition is steadily increasing owing to improved representation, and British manufacturers would do well to overhaul their methods in view of the decline in their trade.

Rice and Flour Mill Machinery.—After a setback in 1925-6, the trade improved slightly last year.

Countries of consignment.	1924-25. Rs. (lakhs).	1925-26. Rs. (lakhs).	1926-27. Rs. (lakhs).
United Kingdom	14	8	11
Germany	6	10	12
U.S.A.	5	5	4
Other countries	3	1	1
Total	28	24	28

Germany is doing a considerable business in equipping small rice milling plants for Burmese owners in the Irrawaddy delta. There have not been any large European rice mills constructed during the period. Owing to irregular supplies of Indian wheat, Indian flour mills have not been working to full capacity and little money has been spent in renewals or extensions.

Saw Mills and Woodworking Machinery.

Countries of consignment.	1924-25. Rs. (lakhs).	1925-26. Rs. (lakhs).	1926-27. Rs. (lakhs).
United Kingdom	11	6	7
Other countries	3	2	2
Total	14	8	9

There is certain competition from Germany and Sweden in woodworking machinery and from the United States in saw milling plants, but the leading British firms are well-represented by resident experts attached to influential agents.

Sewing and Knitting Machines (including parts).—This remarkable trade shows steady expansion in spite of trade depression. The total imports including parts and accessories were:—

	1924-25.	1925-26.	1926-27.
Rupees	68,68,987	79,92,019	87,65,147

The market is mainly catered for by the Singer Sewing Machine Company, whose efficient and widespread organisation of agencies, controlled by the Company's trained staff, continues to expand. Practically all the machines imported by this company are drawn from their Clydebank factory, and constitute an important British export. German competition increases year by year, and in 1925-6 accounted for 14 per cent. of the total imports.

Sugar Machinery.

Countries of consignment.	1924-25. Rs. (lakhs).	1925-26. Rs. (lakhs).	1926-27. Rs. (lakhs.)
United Kingdom	15	12	5·5
Other countries	1	4	·5
Total	16	16	6·0

The Indian sugar industry passed through a difficult year owing to large crops in Cuba, Europe, and Java, resulting in Java sugars being imported at very low prices. The trade in sugar plant consequently suffered.

Tea Machinery.—There has been a sharp reduction since the boom year of 1924-5, but the demand from the Gardens has been well maintained; and the plant used is exclusively British. The figures are as follows—

	1924-25.	1925-26.	1926-27.
Rupees	46,45,959	38,58,503	26,28,099

Typewriters.—This trade shows continuous expansion :—

Year.	Number of Machines.	Value (Rupees).
1924-25	7,445	13,16,661
1925-26	10,947	16,06,962
1926-27	13,790	22,06,090

Until the past year or so, this trade has been practically an American monopoly owing to the efficient and widespread organisation of the principal American Company. In 1925-6 only 607 typewriters valued at Rs.86,000 were imported from the United Kingdom as compared with 9,990 valued at Rs.14,80,241 from the United States of America. The manufacturers of the " Bar-Lock " and the " Imperial " machines of British make are now represented in India, and are rapidly increasing their sales and extending their organisation with a view to securing a fair share of the market. The machines are cheap and good, and a service system is being rapidly built up.

Other Sorts of Machinery.—This comprehensive heading includes all types of machinery and plant not otherwise classified in the customs returns. The total values were as follows :—

	1924-25.	1925-26.	1926-27.
Rupees ...	2,24,56,306	2,25,40,399	2,36,35,366

In 1925-6 the United Kingdom supplied 76 per cent., the United States nearly 11 per cent., and Germany 6 per cent. with lesser proportions from Sweden, Belgium and Japan.

Iron and Steel.—As might be expected in a year which included the prolonged coal stoppage in the United Kingdom, the total quantity of iron and steel imported into India fell from 884,000 tons to 845,000 tons. Fortunately the British rollers of galvanised sheets were able to carry on during the strike, otherwise the diminution would have been much greater. The principal reductions were in beams, channels, girders and bridgework (27,000 tons), galvanised sheets (8,000 tons), tinned plates (7,000 tons), and plain sheets (30,000 tons).

The Committee of the Calcutta Import Trade Association in their report for 1926 state that—

" Rates for British manufactured material remained steady during the first five months of the year, but these quotations were rupees thirteen per ton lower than for the same period the previous year. Imports of British material during this period were heavier than the previous year, due to importers bringing out unusually heavy stocks in anticipation of the general strike which was threatened to commence on May 1st.

The strike occurred and makers were forced to shut down; practically no shipments of British sectional material were made during the remainder of the year.

Continental manufactured material rates rose steadily during the year, the highest point being reached in November—the increase amounting to rupees twelve per ton.

The Tata Iron & Steel Company have, largely in consequence of the stoppage in England, been able to obtain better rates and a bigger market, and their output has been well booked up.

Contrary to expectations, galvanised sheet makers were able to carry on during the coal strike, and imports to this country show an increase of 45 per cent. on 1925 and an increase of 100 per cent. on 1924.

There was undoubtedly considerable over-buying, and consequently the market has suffered badly, practically throughout the whole year. Makers quotations dropped steadily during the first four months of the year, but then rose steadily for the remainder of the year, the difference between April and November rates amounting to Rs.15/- per ton.

The Calcutta market was seriously disorganised by communal rioting in April and May, the effects of which were felt for a considerable time afterwards.

Conditions at the jetties have been more or less satisfactory during the year. Although during the riot period the Port Commissioners allowed certain concessions, importers suffered heavy wharf rent charges; the removal of material having been made considerably more difficult by the absence of labour experienced in handling iron and steel."

The following statement shows the chief sources of supply of iron and steel with the percentage share of each country in the import trade :—

CHIEF SOURCES OF SUPPLY OF IRON AND STEEL.

	From the United Kingdom.		From Germany.		From Belgium.		From the United States.		From Other Countries.		Total.
	Tons. (thousand)	Share. per cent.	Tons. (thousand)	Share. per cent.	Tons. (thousand)	Share. per cent.	Tons. (thousand)	Share. per cent.	Tons. (thousand)	Share. per cent.	Tons. (thousand)
1913-14 ...	609	59·8	200	19·6	173	17·0	22	2·2	14	1·4	1,018
1919-20 ...	269	63·0	1	·2	13	3·1	135	31·6	9	2·1	427
1920-21 ...	498	70·0	15	2·1	69	9·7	113	15·9	17	2·3	712
1921-22 ...	280	45·7	60	9·8	160	26·1	84	13·7	29	4·7	613
1922-23 ...	359	48·1	90	12·1	229	30·7	38	5·1	30	4·0	746
1923-24 ...	429	56·7	61	8·0	217	28·7	18	2·4	31	4·2	756
1924-25 ...	439	50·5	88	10·1	273	31·4	17	2·0	52	6·0	869
1925-26 ...	489	55·3	69	7·8	229	25·9	23	2·6	74	8·4	884
1926-27 ...	406	48·1	79	9·3	257	30·4	29	3·4	74	8·8	845

It is remarkable that the United Kingdom has obtained 48 per cent. of the trade in face of such adverse conditions. It will be convenient to show the principal headings under which competition was encountered during the past year.

Description.	From the U.K.	From U.S.A.	From Belgium.	From Germany.	Total Imports.
	Tons.	Tons.	Tons.	Tons.	Tons.
Iron bars and channels ...	1,569	*	7,664	34	10,457
Iron or steel beams, girders, pillars and bridgework ...	23,952	631	31,586	2,748	71,577
Nuts and bolts	2,478	329	4,621	2,766	11,330
Hoops and strips	13,684	255	12,404	4,658	35,351
Nails, rivets and washers (other than wire nails) ...	6,552	*	4,088	1,912	17,322
Cast pipes and fittings ...	6,194	*	*	*	9,080
Galvanised sheets and plates	249,024	12,088	*	*	274,819
Tinned plates	11,592	10,623	*	*	22,244
Plates not galvanised or tinned	16,510	804	31,234	9,045	61,967
Wrought tubes, pipes and fittings	12,202	1,895	4,494	9,735	29,942
Wire nails	392	*	9,810	3,276	14,498
Wire rope	2,716	85	*	*	3,027
Steel bars (other than cast steel	8,187	*	88,790	27,393	151,096

*Not separately distinguished.

American competition is not serious except in tinned plates. American shipments of galvanised sheets are steadily expanding, and I am informed that the United States Steel Products Co. Ltd. are supplying a large percentage of the Burma demand for 30 gauge sheets due to the even galvanising and bright finish of the American sheets. It is stated that while the British suppliers charge on a basis of four cases per ton, the American manufacturer allows for underweight, but does not charge for overweight. American sheets, however, do not at present compete in the Calcutta market.

In addition to the competitors noted in the above table, Sweden and Norway supplied considerable quantities of nails, rivets and washers, and Luxemburg shipped over 16,000 tons of steel bars.

The whole steel position and the probable results of the recent differential duty on certain kinds of British steel is dealt with at length in Chapter III., where the recent report of the Indian Tariff Board is analysed in detail.

The following brief comments under each heading analyse the position in 1926-27 as compared with the figures for the previous year :—

Bars (other than Cast Steel).— This valuable trade rose from 126,000 tons to 151,000 tons and from Rs.134 lakhs to Rs.149 lakhs. The Belgian share rose from 77,000 tons valued at Rs.78 lakhs to 89,000 tons valued at Rs.84 lakhs, that of Luxemburg also advanced from Rs.8 to Rs.15

lakhs and that of Germany from Rs.14 to Rs.26 lakhs. On the other hand imports from the United Kingdom fell from 14,000 tons valued at Rs.21 lakhs to 8,000 tons valued at Rs.13 lakhs.

Beams, Channels, Pillars, Girders and Bridgework.—The total trade was reduced from 98,000 tons to 72,000 tons and the value from Rs.122 lakhs to Rs.89 lakhs. The British share fell from Rs.54 lakhs to Rs.40½ lakhs, that of Belgium from Rs.45 lakhs to Rs.32½ lakhs, France from Rs.15 lakhs to Rs.9½ lakhs. The German share was also reduced from Rs.5 lakhs to Rs. 2½ lakhs.

Bolts and Nuts. — Notwithstanding an increase in the total trade from Rs.27½ lakhs to Rs.32½ lakhs, the British share fell from Rs. 12 to Rs.10 lakhs. Imports from Germany however advanced slightly from Rs.8 to Rs. 8½ lakhs, those from Belgium from Rs. 4 to Rs.9 lakhs, and those from U.S.A. remained steady at about Rs. 1½ lakhs.

Hoops and Strips. — A fall took place in the total imports from 39,000 tons valued at Rs.67 lakhs to 35,000 tons valued at Rs.53 lakhs. The British share fell heavily from 22,000 tons to 14,000 tons, and in values from Rs.42 to Rs.24 lakhs. On the other hand shipments from Belgium increased from 7,000 tons to 12,000 tons, the values from Rs.10 to Rs.16 lakhs.

Nails, Rivets and Washers (other than Wire Nails). — The total trade increased from 15,000 tons valued at Rs.46 lakhs to 17,000 tons valued at Rs.52 lakhs. The British share advanced slightly from Rs.16½ lakhs to Rs.19¾ lakhs, Belgian shipments rose from Rs.5½ to Rs.9 lakhs and those from Norway from Rs.6 to Rs.9 lakhs. On the other hand imports from Sweden fell from Rs.10½ to Rs.7½ lakhs, and those from Germany from Rs.5 to Rs.4½ lakhs.

Cast Pipes and Fittings.— The total imports fell from 11,708 tons valued at Rs.27 lakhs to 9,080 tons valued at Rs.23 lakhs. The British share shrank from 9,564 tons valued at Rs.23 lakhs to 6,194 tons valued at Rs.17 lakhs. The share of other countries advanced from Rs.4 to Rs.6 lakhs.

Galvanised Sheets and Plates.—After a steady expansion for some years the period under review showed a decline from 283,000 tons valued at Rs7·5 crores to 275,000 tons valued at Rs.7·2 crores. In view of the coal strike it is extraordinary that shipments from the United Kingdom were only reduced from 272,000 tons to 249,000 tons, and the values from Rs.7·15 crores to Rs.6·45 crores. Shipments from the U.S.A. advanced from 8,000 to 12,000 tons and from Rs.30 to Rs.40 lakhs.

Tinned Plates.—Owing to the activities of the Tin Plate Co. of India Ltd., the total imports were still further reduced from 29,758 tons valued at Rs.105 lakhs to 22,244 tons valued at Rs.77 lakhs. The British share fell from 18,096 tons of a value of Rs.65 lakhs to 11,592 tons of a value of Rs.40 lakhs. On the other hand American shipments declined from 11,231 tons (Rs.39 lakhs) to 10,623 tons (Rs.37 lakhs). It will be seen that imports last year were about equally divided between South Wales and the United States.

Sheets and Plates (not Galvanised or Tinned). — There was a marked fall in the total trade from 91,667 tons (Rs.135 lakhs) to 61,967 tons (Rs.84½ lakhs). The British share fell from Rs.50 lakhs to Rs.28 lakhs, that of Belgium from Rs.55 to Rs.38 lakhs, Germany from Rs.16 to Rs.11 lakhs and " unspecified countries " from Rs.12 to Rs.5 lakhs.

Wrought Tubes, Pipes and Fittings. — The total imports advanced from 25,270 tons (Rs.84 lakhs) to 30,000 tons (Rs.91 lakhs). The British share remained steady in quantity just over 12,000 tons, but the values fell from Rs.49 to Rs.45 lakhs. Imports from Germany, however,

rose from 6,708 tons (Rs.19 laks) to 9,735 tons (Rs.25 laks), while those from Belgium advanced from 4,094 tons (Rs.10½ lakhs) to 4,494 tons (Rs.11 lakhs). Imports from U.S.A. totalled Rs.5½ lakhs.

Wire Nails.—The imports nearly doubled from 7,706 tons valued at Rs.13 lakhs to 14,498 tons valued at Rs.25 lakhs. Of the last figure Rs.17 lakhs was supplied by Belgium, Rs.6 lakhs by Germany and only Rs.57,668 (say £4,000) by the United Kingdom.

Wire Rope.—The total trade rose in quantity from 2,647 tons to 3,027 tons, but fell in value from Rs.20 to Rs.19½ lakhs. British shipments advanced in quantity from 2,478 tons to 2,716 tons, but shrank in value from Rs.19 lakhs to Rs.17½ lakhs. 85 tons (Rs.1 lakh) were sent by the U.S.A. and 226 tons (Rs.78,000) by Other Countries—mainly Germany.

Aluminium.— The imports of aluminium in its various forms continue to advance with the extension of the Indian hollow-ware manufacturing industry.

	1925-26.		1926-27.	
	Cwt.	Rs. (lakhs).	Cwt.	Rs. (lakhs).
Unwrought.				
Ingots, blocks, bars ...	3,238	2	5,470	4
Wrought.				
Circles	72,101	74	79,869	76
Sheets	3,901	4	4,634	4
Other manufactures ...	7,836	13	7,249	11
Total Imports ...	87,076	93	97,222	95

Particulars relating to the provenance of imports are not yet available for 1926-27, but in the previous year 73 per cent. of the unwrought aluminium was obtained from Switzerland with lesser values from the United Kingdom and Italy. Of the circles, the United States shipped 31 per cent., the United Kingdom 27 per cent., Germany 22 per cent., and lesser values were obtained from France, Belgium and Italy. Sheets were drawn from the United States (55 per cent.) and the United Kingdom (33 per cent.). The imports of "other manufactures" comprise mainly wire and utensils, and were obtained principally from Germany, Switzerland and Belgium. Competition from the United States and Germany is entirely based on price. The Northern Aluminium Company of America operate their own sales organisation in India, while German shippers usually supply against indents from dealers. The British Aluminium Company is strongly represented and controls one of the largest utensil factories in India. Continual price-cutting has recently reduced rates to a very low level, which can leave very little margin of profit.

Brass, Bronze and similar Alloys.—*Mixed or Yellow Metal for Sheathing.*—This valuable trade showed a further expansion during the year.

Countries of consignment.	1925-26.		1926-27.	
	Cwt.	Rs. (lakhs).	Cwt.	Rs. (lakhs).
United Kingdom	198,971	103	120,853	60
Germany	141,274	70	241,202	114
Other countries	4,751	3	64,801	30
Total	344,996	176	426,856	204

The British share has been steadily falling for some years, as she has been unable to compete in price with her German, and, latterly also, her Japanese competitors. A prominent importer states that the British goods lead in quality, and will always be first in demand when their price is reasonably near that of their foreign competitors. The question of gauge is very important. Yellow metal is worked up into various utensils by hand, and therefore the thinner gauges are most in demand. A normal specification in yellow metal sheets demands an average of 28 lbs. per sheet (48 in. by 48 in.), and a premium is charged for a preponderance of lighter sheets. In the same way, circles are expected to be of normal average gauge, and in addition a premium is demanded for sizes under 12 in. in diameter. It is stated that foreign manufacturers are generally more lenient than British, and their readiness to meet the demand for the thinner gauges of sheets and the small sizes of circles without the usual increase of price has greatly increased their share of the business. As a case in point, Japanese circles have latterly been competing keenly, and the makers are reported to have expressed their readiness to give any size of circle required by buyers, whereas I am informed that British makers will rarely quote for less than 9 in. or 10 in. circles.

Other Manufactures (Wrought).—The imports were as follows :—

	1925-26. Rupees.	1926-27. Rupees.
Rods	3,06,585	3,69,237
Sheets	63,6,381	4,61,957
Tubes	1,35,523	1,20,129
Wire	5,72,403	4,24,977
Other sorts	61,48,613	31,64,970

Copper (Wrought). — The imports of wrought copper during the past two years have been made up as follows :—

	1925-26. Rs. (lakhs).	1926-27. Rs. (lakhs).
Braziers	—	—
Sheets	1,26	1,09
Rods	7	4
Tubes	3	4
Wire (excluding telegraph and telephone wire) ...	4	4
Other manufactures ...	10	6

The subjoined table gives the provenance of the imports :—

Countries of consignment.	1925-26.		1926-27.	
	Cwt.	Rs. (lakhs).	Cwt.	Rs. (lakhs).
United Kingdom	43,873	25	33,771	19
Germany	149,764	85	164,740	77
United States	29,257	17	775	1
Other countries	41,958	23	58,440	30
Total	264,852	1,50	257,726	1,27

Foreign competition is keenest from Germany and Japan. American copper is imported principally in ingot form. It is understood that in copper sheets the question of gauge is not of great importance. The all-important factor is that of price, and an importer quotes the following prices in the Calcutta market :— British sheets £70 10s., German sheets £69 10s., French sheets £68 10s. The French sheets are stated to be harder than the British or German makers, and therefore not so much in demand.

German Silver (including Nickel Silver).—The trade has sustained a slight setback during the year. The imports were :—

	1924-25.	1925-26.	1926-27.
Rupees	14,47,920	21,71,744	14,35,895

In 1925-26, the last year for which details are available, Germany shipped Rs.9 lakhs worth, Italy Rs.4½ lakhs, Austria Rs.4 lakhs, and the United Kingdom Rs.2½ lakhs.

Railway Plant and Rolling Stock.—India's purchases of railway plant show a further material decrease both on account of State-operated lines and also on account of the company-worked railways. This is mainly due to an enormous reduction in the imports of wagons, partly in consequence of the very considerable surplus of wagons available on the Indian railways, and partly of the fact that local wagon builders secured the major share of the few orders for certain types given out during the year.

State-operated Lines.—The imports of Government Stores from the India Store Department, London, on account of the State Railways were as follows :—

Countries of consignment.	1924-25. Rs. (lakhs).	1925-26. Rs. (lakhs).	1926-27. Rs. (lakhs.)
United Kingdom	1,00	2,26	1,71
Germany	11	17	15
Belgium	12	47	67
U.S.A.	2	1	3
Australia	—	11	6
Other countries	4	12	21
Total	1,29	3,14	2,83

The figures for the past two years have, of course, been swollen by the taking-over by the State of the East Indian Railway and the Great Indian Peninsula Railway in 1925. The reduction in the British share to 60 per cent. is very striking. Of course, the coal stoppage is primarily responsible for this decline, but for some years now the Director-General of the India Store Department has been purchasing in the cheapest market, irrespective of origin, and the British share has steadily declined. The probable introduction next year of the Rupee tender in India will have a revolutionary effect on this business, as it will definitely transfer the great bulk of the purchases for Indian State Railways from London to India. I, therefore, recommend all British suppliers of railway plant to study carefully the statement of the new position which will be found in Chapter IV.

Company-worked Lines.—The reduction in the total imports is affected by the transfer to the State of the two lines mentioned above. The figures are as follows :—

Countries of consignment.	1924-25. Rs. (lakhs).	1925-26. Rs. (lakhs).	1926-27. Rs. (lakhs).
United Kingdom	5,12	4,24	2,00
Germany	7	18	28
Belgium	11	28	39
United States	17	15	21
Australia	—	8	24
Other countries	24	6	14
Total	5,71	4,99	3,26

Here again, the reduction in the British share to 61 per cent. proves that the London Offices of the company-worked railways have followed the example of the India Store Department in purchasing abroad in those cases where lower prices were obtainable. Owing to the general strike and the prolonged coal stoppage, the past year was a quite exceptional one, and it is to be expected that the British share will recover to some extent next year.

Motor Vehicles. — *Motor Cars.*—The total number of cars imported was as follows :—

Year.	From U.K.	From U.S.A.	From Canada.	From France.	From Italy.	Total (all sources).
1913-14 (pre-war)	1,669	868	—	111	7	2,880
1922-23	449	1,386	1,846	61	131	4,323
1923-24	1,005	2,865	3,290	153	370	7,984
1924-25	1,682	3,106	3,956	215	235	9,380
1925-26	2,399	4,143	4,775	367	860	12,757
1926-27	2,546	4,029	4,477	607	1,416	13,197

It will be noted with satisfaction that the increase in the import of British cars continues, but at a reduced rate. This is probably due to the fact that certain shipments were held up in anticipation of the reduction of the import duty on March 1st. The most noteworthy feature of the returns is the remarkable advance made by Italian cars due to the introduction of new Fiat models at extraordinarily low prices.

The two outstanding events of the year have been the reduction in the import duty from 30 to 20 per cent. *ad valorem* and the movement towards a Central Road Board.

The reduction of the import duty was long overdue, and coupled with the reduction in the duty on tyres to 15 per cent., should give a considerable fillip to the imports of cars in general, and of British cars in particular. The British product, owing to its higher price, has suffered disproportionately from the high duty, and will be greatly benefited by the reduction. The Finance Member, in his budget speech, stated that " the reduction is in accordance with the views of the Taxation Enquiry Committee, which rightly drew attention to the importance of encouraging the development of motor transport in India. Neither the Government, nor, I think, the House would feel perturbed if the Provincial Governments seized the opportunity of this reduction of the import duty to impose provincial taxation on the users of motor cars for the improvement and development of their systems of road communication."

For some time a small body of enthusiasts in Bombay have been carrying on a movement for better roads in India by a programme of propaganda in order to educate public opinion on the subject and to enlist the sympathy of members of the Central Legislature. An Indian Roads and Transport Development Association has been formed with branch committees in the several provinces, funds have been raised or guaranteed from the interests vitally concerned and considerable progress has been made.

On February 9th, 1927, a resolution was adopted in the Council of State that :—

" This Council recommends to the Governor-General in Council to appoint a Committee including Members of both Houses of the Central Legislature, to examine the desirability of developing the road system of India, the means by which such development could be most suitably financed and to consider the formation of a Central Road Board for the purpose of advising in regard to, and co-ordinating the policy in respect of, road development in India."

The Government of India are in sympathy with this proposal, and the Committee will probably be constituted during the coming summer, will tour India during the cold weather, and will probably present their recommendations to Government in time for them to be considered during the February-March Session of the Legislature next year when, it is hoped, a Central Road Board will be set up.

The Indian market for motor cars presents many difficulties to the British manufacturer, and not least of these are the questions of representation and marketing. The Department of Overseas Trade will be glad to give advice on these important questions.

The following statement shows the number of motor vehicles registered in British India up to 31st March, 1927 :—

Provinces.	Motor cars, including taxi-cabs.	Motor cycles including Scooters and Auto-wheels.	Heavy motor vehicles (lorries, buses, etc.)	Total.
Bengal, including Calcutta ...	19,938	3,574	2,144	25,656
Bombay City	10,079	868	787	11,734
Bombay Presidency, excluding Bombay City and Sind	6,189	688	161	7,038
Madras City	8,306	2,207	992	11,505
Madras Presidency, excluding Madras City	4,219	1,548	2,592	8,359
United Provinces ...	5,969	2,160	1,597	9,726
Punjab	8,207	3,100	298	11,605
Burma	9,888	2,699	2,098	14,685
Bihar and Orissa	4,429	895	751	6,075
Delhi	2,907	792	359	4,058
Central Provinces	3,105	837	790	4,732
Sind	2,087	812	131	3,030
North-West Frontier Province	1,737	1,136	568	3,441
Ajmer-Merwara	199	79	28	306
Assam (*a*) .., ...	1,508	270	500	2,278

(*a*) Figures relate to motor vehicles registered during the year ended 31st December, 1926.

Motor Cycles.—A further encouraging advance is to be recorded in this trade, although the total imports are still far below what they should be into a country like India. This trade should also be stimulated by improved roads. The total imports were :—

Countries of consignment.	1925-26.		1926-27.	
	Number.	Rupees.	Number.	Rupees.
United Kingdom	1,458	8,82,309	1,665	9,76,004
United States	113	79,406	75	44,514
Other countries	58	24,634	63	26,365
Total	1,629	9,86,349	1,803	10,46,883

It is highly satisfactory to note that British manufacturers have strengthened their hold on the market at the expense of their American competitors.

Motor Omnibuses, Vans and Lorries.—The extension of motor omnibus services, not only in the large towns, such as Calcutta and Bombay, but also through the Mofussil, continues, and the imports show a further considerable expansion.

The vehicles were imported as follows :—

	1925-26. Number.	1926-27. Number.
Vehicles imported with bodies ...	626	998
Chassis	4,214	5,345

Facilities exist in the large towns for the building of bodies, and it is likely that the demand for chassis only will increase in future.

The provenance of the imports was as follows :—

Countries of consignment.	1925-26.		1926-27.	
	Number.	Rs. (lakhs).	Number.	Rs. (lakhs).
United Kingdom	338	14	341	19
Canada	2,378	30	3,529	48
United States	2,014	41	2,322	49
Other countries	110	3	151	3
Total	4,840	88	6,343	1,19

The development in the use of British 'buses is disappointing. British models of large 'buses have been selected by the Tramway Companies in the large towns, such as Calcutta, Bombay and Rangoon, but the Indian services, which are springing up all over the country, usually connecting villages with the nearest railway station, consider low first cost, and are attracted by American and Canadian types, which have a shorter life, but which are cheap and can be scrapped after a couple of years, thus avoiding the necessity for an elaborate repair and maintenance organisation.

British manufacturers desiring further information on this subject should consult the Indian Section of the Department of Overseas Trade, where detailed reports are available concerning the types in demand, etc., etc.

Cycles (other than Motor Cycles and Parts thereof) and Accessories.—There has been an extraordinary boom in the cycle trade during the past three years, but there are signs that the trade has been overdone, and we may expect some falling-off next year. The values imported last year were three times those of the last pre-war year. The figures were :—

	1924-25.	1925-26.	1926-27.
Number of cycles imported entire or in sections	62,003	96,649	115,528
Values of parts of cycles and accessories (excluding rubber tyres)	Rs. (lakhs). 36	Rs. (lakhs). 47	Rs. (lakhs). 47
Of which from			
United Kingdom	65	87	92
Germany	11	13	13
Other countries	1	1	2
Total	77	1,01	1,07

Deducting the value of parts and accessories, we arrive at an average landed value per machine of Rs.52/-, say, £3 18s. Thanks to low prices, efficient representation on the spot, and many years experience of the market, British makers have been able to increase their share to nearly 90 per cent. of the total. Foreign competition is almost entirely in parts and accessories. The principal markets in order of importance are Calcutta, Bombay, Karachi, Madras and Rangoon.

Provisions. — There has been a further advance by almost a crore of rupees in the imports of provisions and oilman's stores, but this is mainly owing to the inclusion under this heading of vegetable ghee, which is being separately classified from April 1st, 1927. The subjoined table shows the source of the imports of provisions during the past two years :—

Countries of consignment.	1925-26. Rs. (lakhs).	1926-27. Rs. (lakhs).
United Kingdom	1,71	2,03
Netherlands	1,12	1,65
Portugal	6	4
Straits Settlements	46	55
China (including Kongkong) ...	14	15
United States	34	44
Australia	22	13
Other countries	60	51
Total	4,65	5,50

In order to arrive at the true state of affairs, the Netherlands should be largely eliminated from this table and also about 50 per cent. of the share of " other countries," as these two headings account for most of the vegetable ghee. Imports from the Straits Settlements and China are mainly non-competitive. If, therefore, due allowances are made, it will be found that the United Kingdom supplies about 60 per cent. of the competitive trade.

The most important articles imported were the following :—

Principal Articles.	Average of 5 years 1909-10 to 1913-14.	1925-26.	1926-27.
	cwt.	cwt.	cwt.
Farinaceous and patent foods	255,900	351,697	450,850
Canned and bottled provisions	86,100	385,695	537,076
Biscuits and cakes	72,900	40,113	51,341
Milk (condensed and preserved) ...	103,300	135,888	182,846
Jams and Jellies	17,400	14,875	14,756
Bacon and hams	14,500	15,207	15,195
Cocoa and chocolate	4,600	4,294	4,936
Cheese	11,700	10,013	11,258

Detailed information with regard to the provenance of the imports under each heading for 1926-27 are not yet available, but in the previous year the Straits Settlements and China supplied more than half of the farinaceous foods imported, mainly in the form of sago and sago flour. The United States supplied nearly 60 per cent. of the canned fruits and 43 per cent. of the canned fish. Condensed and preserved milk was drawn from the Netherlands, the United Kingdom, Australia and Norway. The United Kingdom supplied 90 per cent. of the biscuits and cakes imported, while the imports of jams and jellies were divided between the United Kingdom (55 per cent.) and Australia (43 per cent.). The United Kingdom shipped practically the whole of the bacon and hams, but only 44 per cent. of the cocoa and chocolate, severe competition being met with from Holland in cocoa and Switzerland in chocolate. Two-thirds of the imports of cheese are drawn from Holland. Competition from the United States is keen in bottled fruits, Alaska salmon and other tinned fish, Quaker Oats and other types of tinned goods. American shippers of bottled provisions score from the tasteful and attractive make-up of their goods. Dutch competition is mainly experienced in cheese, the Dutch cheese with its hard spherical casing standing the climate better than the British. Dutch competition in cocoa is of recent growth, but is steadily increasing.

Vegetable Ghee.—Vegetable fat or vegetable product, as it is generally declared in the bills of entry, is rapidly increasing in popularity, and the imports now assume considerable proportions. Detailed figures will be available next year. The article is imported chiefly from the Netherlands and Belgium, and to a less extent from the United Kingdom, Germany and France. The principal imports are through Bombay and Karachi.

Liquors (*Ale, Beer and Porter*).—The following table gives the imports, both quantities and values, during the past two years :—

Countries of consignment.	1925-26.		1926-27.	
	Gallons.	Rs. (lakhs).	Gallons.	Rs. (lakhs).
United Kingdom	2,139,179	51	2,380,356	54
Germany	1,062,031	27	1,090,826	30
Netherlands	162,915	4	164,575	4
Japan	100,546	2	150,242	3
Other countries	33,674	1	34,049	1
Total Imports ...	3,498,345	85	3,820,048	92

The United Kingdom supplies practically the whole of the beer imported in cask, which in 1925-26 amounted to 1,250,280 gallons valued at Rs.23 lakhs. The United Kingdom also provides virtually the whole of the stout imported. It is in bottled beers where German competition is so keen. In 1925-26 the total imports of bottled beer were 2,069,663 gallons valued at Rs.55 lakhs, and of this the United Kingdom supplied 731,105 gallons (Rs.21 lakhs) and Germany 1,050,399 gallons (Rs.27 lakhs), while Holland and Japan sent small quantities. British brewers have not yet been able to produce a light beer of the lager type which will compete with the German both in price and suitability to the climate.

Spirits.—The following table shows the quantities and values of the principal kinds of spirit imported into India :—

Description.	1925-26.		1926-27.	
	Gallons.	Rs. (lakhs).	Gallons.	Rs. (lakhs.)
Brandy	418,572	45	469,224	51
Gin	94,860	9	108,103	10
Liqueurs	17,683	3	18,524	3
Rum	111,263	2	115,444	2
Whisky	567,826	96	542,826	90
Spirit present in drugs ...	125,994	33	131,744	37
,, perfumed	19,882	14	17,348	14
,, denatured	482,901	7	654,135	10
,, other sorts	70,921	10	78,143	13

The next table shows the countries of consignment of all spirits :—

Countries of consignment.	1925-26.		1926-27.	
	Gallons.	Rs. (lakhs).	Gallons.	Rs. (lakhs).
United Kingdom	736,897	1,35	745,190	1,36
Germany	80,675	7	90,727	8
France	393,773	51	429,973	55
Java	602,891	8	759,384	11
United States	49,193	13	45,177	14
Other countries	46,473	5	65,040	6
Total	1,909,902	2,19	2,135,491	2,30

Brandy is almost entirely obtained from France, with very small quantities from Germany and the United Kingdom. Gin is drawn from the United Kingdom, with about 10 per cent from Holland. Whisky is practically a British monopoly, but Germany sends small quantities of low-priced whisky for the bazaar trade. Of the spirit present in drugs, medicines and chemicals, the United Kingdom sent 46 per cent., the United States of America 36 per cent., and France 12 per cent. Imports of perfumed spirit are obtained from the United Kingdom (46 per cent.), France (36 per cent), and Germany (14 per cent.). Java supplies practically the whole of the denatured spirit, which is denatured at the Indian Custom Houses immediately on arrival and before clearance.

Wines.—The imports of wines increased from 274,455 gallons valued at Rs.29 lakhs in 1925-26 to 295,720 gallons valued Rs.31 lakhs in 1926-27. In 1925-26 the bulk of the sparkling wines were obtained from France with lesser quantities from the United Kingdom and Belgium. The United Kingdom sent 76 per cent. of the port, while France, the United Kingdom, Germany and Italy supplied still wines of other kinds. The United Kingdom figures represent, of course, British re-exports from French, Portuguese and Spanish sources.

Paper and Pasteboard.—This valuable trade aggregated £2,312,000 in value during the past year. The subjoined table shows the percentage shares of the principal countries in the total imports :—

	1913-14 (pre-war).	1924-25.	1925-26.	1926-27.
	Per cent.	Per cent.	Per cent.	Per cent.
United Kingdom	56·2	42·9	41·5	35·5
Norway	5·1	9·0	9·0	10·1
United States	·8	3·1	4·7	4·8
Sweden	3·2	4·4	7·2	7·1
Netherlands	2·5	7·4	9·0	7·8
Japan	1·0	1·0	1·6	1·6
Germany	17·3	21·2	12·1	16·2
Austria ... ... }	8·3	4·0	6·3	7·6
Hungary ... ... }		·1	—	—
Other countries	5·6	6·9	8·6	9·3
Total	100	100	100	100

Packing Paper.—There was a further expansion in this trade, as the following figures show :—

Countries of consignment.	1925-26.		1926-27.	
	cwt.	Rs. (lakhs).	cwt.	Rs. (lakhs).
United Kingdom	23,696	6	22,868	6
Sweden	48,427	9	55,855	10
Norway	12,608	2	10,986	2
Germany	49,780	10	65,501	13
Netherlands	12,068	2	16,999	3
Other countries	29,527	6	35,316	6
Total	176,106	35	207,525	40

The imports are largely of Kraft papers, both genuine and imitation, and a cheaper type of red brown wrapping known as Nature Brown. Lightweight coloured newsprint and tissue papers are also used as wrapping paper. On account of their natural resources the Scandinavian mills are placed in a very favourable position, and the imports from Germany consist largely of Scandinavian papers exported through Hamburg.

Printing Paper.—Notwithstanding the protective tariff of one anna per pound on all printing papers containing less than 65 per cent. of mechanical wood pulp, but excluding chrome, marble, flint, poster and stereo, the import trade shows a further advance :—

Countries of consignment.	1925-26.		1926-27.	
	cwts.	Rs. (lakhs).	cwts.	Rs. (lakhs)
United Kingdom	129,695	30	86,385	19
Sweden	29,214	4	28,855	4
Norway	122,196	19	156,941	23
Germany	73,210	13	133,488	21
Netherlands	37,315	7	34,696	6
Belgium	11,617	3	17,065	4
Austria	60,822	9	96,920	14
Other countries	36,297	5	51,558	8
Total	500,366	90	605,908	99

The large imports of newsprint are mainly derived from Scandinavia and Austria where large supplies of wood pulp are available. There is severe competition from Holland in " Free Printing Papers " based entirely on the lower price. While the Dutch qualities as a rule are not as good as the British, they will serve their purpose, and although the British paper might give a better printing result, Indian printers almost invariably prefer cheapness and place their orders abroad.

Writing Paper and Envelopes.—Although there is now a specific protective duty of one anna per pound on writing paper of

all sorts, including ruled or printed forms and account and manuscript books and the binding thereof, the total trade showed an increase of Rs.7 lakhs over the previous year.

Countries of consignment.	1925-26.		1926-27.	
	cwts.	Rs. (lakhs).	cwts.	Rs. (lakhs).
United Kingdom	82,043	31	74,588	30
Sweden	4,630	1	7,962	2
Norway	10,211	3	20,642	5
Germany	21,080	6	26,726	7
Netherlands	12,781	3	19,602	4
Other countries	24,898	7	41,525	10
Total	155,643	51	191,045	58

The United Kingdom enjoys a much larger share of this trade, but the British trade is being invaded by cheaper productions of lower quality. I am informed that in the past the Scottish mills exported to India a considerable tonnage of writing papers made from esparto grass, but owing to the post-war rise in prices, consumers have been forced to use the cheaper " Free Cream Laid " papers, in which there is keen Continental competition. As regards envelopes, competition is keenest in the cheap cream and tinted Manilla varieties, the basis of which is a species of wrapping paper.

Miscellaneous.

	1924-25. Rs. (lakhs).	1925-26. Rs. (lakhs).	1926-27. Rs. (lakhs).
Old newspapers in bales and bags ...	37	35	38
Other kinds of paper	21	22	24
Paper manufactures	21	18	16

Until recent years the United Kingdom monopolised the trade in old newspapers, but during the past three years the United States of America has been shipping considerable quantities, and in 1925-26 supplied nearly 30 per cent. of the total. As a result of the protection afforded to Indian paper mills, conditions in the local industry have considerably improved, and shares have shown a marked appreciation over the rates ruling last year.

Chemicals and Chemical Preparations (*excluding Chemical Manures and Medicines*). — The total imports of chemicals and chemical preparations during the last three years have been as follows :—

	Rs. (lakhs).
1924-5	209
1925-6	203
1926-7	245

Details with regard to the provenance of the imports last year are not yet available. The following table shows the position of the principal countries during the two previous years :—

Principal countries of consignment:	1924-25. Rs. (lakhs).	1925-26. Rs. (lakhs).
United Kingdom	131	124
Norway	4	4
Germany	39	42
Netherlands	4	4
Belgium	2	3
Italy	11	6
Japan	2	3
United States	4	6
Total Imports (all sources) ...	209	203

The next table gives the percentage share of the principal countries of consignment over a period of years :—

	1913-14 (pre-war)	1924-25.	1925-26.	1926-27.
	Per cent.	Per cent.	Per cent.	Per cent.
United Kingdom	74·7	62·7	61·2	57·9
Germany	12·4	18·7	20·6	21·5
United States	·3	1·9	2·9	2·8
Italy	5·2	5·0	3·1	5·7
Kenya Colony	—	1·4	1·4	1·4
Norway	·5	1·9	1·8	1·7
Japan	1·5	1·0	1·3	1·4
Other countries	5·4	7·4	7·7	7·5
Total	100	100	100	100

The German proportion is increasing at a very rapid rate, and the activities of Indian branches of the large German combines, such as the Havero Trading Company, which represents the " I. G.," are having a marked effect. This subject is dealt with at greater length in Chapter II.

Dyeing and Tanning Substances.—*Dyes obtained from Coal Tar. Alizarines.*—The imports were derived as follows :—

Countries of consignment.	1925-26.		1926-27.	
	lbs.	Rs. (lakhs).	lbs.	Rs. (lakhs).
United Kingdom	585,289	4	741,872	4
Germany	649,544	5	2,991,139	19
Netherlands	329,274	3	999,816	7
Belgium	239,396	1	153,887	1
Total Imports (all sources) ...	1,854,498	14	5,044,663	32

The expansion in the imports from Germany is noteworthy, and to these should be added the bulk of the imports from Holland and Belgium, as they represent mainly dyes in transit from Germany.

Anilines.

Countries of consignment.	1925-26.		1926-27.	
	lbs.	Rs. (lakhs).	lbs.	Rs. (lakhs).
United Kingdom	470,295	7	443,291	7
Germany	4,862,499	77	5,982,236	84
Netherlands	497,286	9	410,714	8
Belgium	231,933	4	359,007	7
Switzerland	577,850	11	403,943	7
United States	1,571,110	16	1,951,513	19
Other countries	244,208	5	386,550	6
Total Imports... ...	8,455,181	1,29	9,937,254	1,38

Taking into account the quantities of German dyes shipped through Dutch and Belgian ports, we find that Germany controls nearly 80 per cent. of the trade, the United States 12 per cent., the United Kingdom and Switzerland about 5 per cent. each. The competition of the United States in the commoner types of dyes, such as Sulphur black and congou red, is becoming increasingly felt even by the Germans on account of the very low export prices which American producers are in a position to charge on account of their protected home market. This question is dealt with in detail in Chapter II.

Soap. — This valuable trade continues to show expansion. The various types imported were as follows :—

Description.	1925-26.		1926-27.	
	Cwt.	Rs. (lakhs).	Cwt.	Rs. (lakhs).
Household and laundry soap	338,473	99	340,308	100
Toilet soap	35,649	38	43,032	46
Other sorts	32,533	9	19,135	6
Total Imports ...	406,655	1,46	402,475	1,52
of which from—				
United Kingdom	390,828	1,36	378,738	1,37
Other countries	15,827	10	23,737	15
Total	406,655	1,46	402,475	1,52

So far as household and laundry soaps are concerned, British makers are *hors concours,* thanks to the excellence of their productions and to their efficient selling organisation. The imports of

household soap from Australia are increasing and exceeded a lakh in value in 1925-26. In toilet soaps, however, there is increasing competition from the United States (14 per cent. in 1925-26), Germany and Austria also send small quantities. The American productions are of world-wide repute, are most attractively made-up, are extensively advertised, and are actively pushed by travellers and agents. Foreign manufacturers appear to be more ready to meet special market requirements in the matter of shape, weight and make-up than some of their British competitors.

Paints and Painters' Materials—*Paints and Colours.*—After remaining constant at about a crore for some years the total imports rose to Rs.111 lakhs during the year under review.

The position is as follows :—

Countries of consignment.	1925-26.		1926-27.	
	Cwt.	Rs. (lakhs).	Cwt.	Rs. (lakhs).
United Kingdom	248,887	77	256,631	78
Germany	34,847	7	45,769	9
Japan	12,466	4	12,394	4
United States	8,145	4	10,073	5
Other countries	54,331	10	62,460	15
Total Imports ...	358,676	1,02	387,327	1,11

German competition is increasing in the cheap lower-grade paints for bazaar use, while the United States supplies fair quantities of directly competitive goods. Imports from Japan almost entirely consist of red lead. British makers, however, are strongly represented, possess established marks, and are holding their own, both in the higher grades for use by railways, public bodies and industry, and in the cheap and meretricious bazaar varieties.

Painters' Materials.—These comprise :—

Description.	1925-26.		1926-27.	
	Cwt.	Rs. (lakhs).	Cwt.	Rs. (lakhs).
Genuine turpentine	2,986	2	7,087	4
Turpentine substitute ...	4,241	1	4,182	1
Varnish	29,775	20	32,911	21
Other kinds	Not recorded	5	Not recorded	7
Total	—	28	—	33

Genuine turpentine is almost exclusively supplied by the United Kingdom. The Straits Settlements and the United States supply small quantities of turpentine substitute. The important varnish trade is divided between the United Kingdom (86 per

cent.), Germany (5 per cent.) and the United States (6 per cent.). Varnishes are now being manufactured in India by one or two British manufacturers, who have opened branch works, and this competition may be increasingly felt in the future.

Drugs and Medicines (*excluding Chemicals and Narcotics*). —The principal items which are enumerated under this comprehensive heading are :—

Description.	1925-26. Rs. (lakhs).	1926-27. Rs. (lakhs).
Camphor	21	28
Cassia lignea	10	17
Codliver Oil	2	1
Preparations of opium and morphia ...	0·5	1
Proprietary and patent medicines ...	24	27
Quinine salts	31	26
Other sorts	95·5	107
Total imports of all kinds ...	1,84	2,07

Japan supplies the bulk of the camphor, although imports from Germany have latterly been increasing. Cassia lignea is obtained entirely from China. Codliver oil is drawn from the United Kingdom, and a small quantity from Holland. The United Kingdom also supplies most of the preparations of opium and morphia. The valuable trade in proprietary and patent medicines is divided between the United Kingdom (51 per cent.), the United States of America (12½ per cent.), Germany (13 per cent.), France (9 per cent.), and lesser quantities from Holland and Italy. Of the quinine salts, the United Kingdom supplies 66 per cent., Germany 17 per cent. and Java 10 per cent. Of the total trade in drugs and medicines in 1925-26 the United Kingdom sent 46 per cent., Japan 14 per cent., Germany 11 per cent., the United States 7 per cent. and China (including Hongkong) 8 per cent.

British manufacturers suffer from the lack of a Pure Food and Drugs Act in India, as their competitors are able to compete with drugs which do not come up to the standard of the British Pharmacopœa, and for which there is no standard of quality.

Apparel (*excluding Hosiery, Boots and Shoes*).—The following table shows the imports under each main heading :—

Article.	1925-26. Rs. (lakhs).	1926-27. Rs. (lakhs.)
Apparel (including drapery, uniforms and accoutrements)	79	82
Gold and silver thread	25	29
Hats, caps, bonnets and Hatters' ware	30	33
Lametta...	5	6
Second-hand Clothing	24	25
Waterproofed clothing	3	3
Total imports of all kinds ...	1,66	1,78

In 1925-26 the United Kingdom shipped 64 per cent. of the apparel, the other competitors being Japan, Germany, Italy and the United States of America. Gold and silver thread is virtually a French monopoly, although imports from Germany show a tendency to grow. Hats, caps, etc., are drawn from the United Kingdom (44 per cent.), Italy (32 per cent.), Germany (7 per cent.) and Japan (7 per cent). Lametta is derived from Germany and France with a small quantity from Austria. The trade in second-hand clothing is an important one, mainly centred in Bombay and Karachi. The United Kingdom supplies nearly 70 per cent. and the United States of America sends the rest. The relatively small imports of waterproofed clothing are drawn from the United Kingdom.

The provenance of the total imports was as follows :—

Countries of consignment.	1925-26. Rs. (lakhs).	1926-27. Rs. (lakhs).
United Kingdom	83	86
Germany	16	21
France	21	24
Italy	13	16
Japan	11	13
United States	11	11
Other countries	11	7
Total	1,66	1,78

Hosiery — *Cotton.*—This is an important trade which shows steady progress, and is made up as follows :—

	1925-26. Rs. (lakhs.)	1926-27. Rs. (lakhs).
Stockings and socks...	25	24
Underwear	1,09	1,18
Other sorts	6	5
Total	1,40	1,47
of which from :—		
United Kingdom	3	3
Japan	1,11	1,18
United States	6	5
Other countries	20	21

Most of the imports are non-competitive, from a British manufacturer's point of view, as they do not usually produce such low-quality articles as the bulk of the Japanese socks, singlets, etc., which are bought in the bazaars. The imports from " other countries " consist mainly of high and medium grade stockings and socks from the United States of America and cheap underwear from Germany.

Woollen.—The imports of woollen hosiery are considerable and tend to increase :—

	1924-25.	1925-26.	1926-27.
Rupees	13,28,610	21,07,708	18,47,398

In 1925-26 the United Kingdom sent 92 per cent. of the total, only insignificant values being obtained from Germany and Japan.

Haberdashery and Millinery.—The principal headings comprise :—

Article.	1925-26. Rs. (lakhs).	1926-27. Rs. (lakhs).
Laces and embroidery	38	42
Towels not in the piece	14	8
Other sorts	58	63

The provenance of the imports was as follows :

Principal countries of consignment.	1925-26. Rs. (lakhs).	1926-27. Rs. (lakhs).
United Kingdom	29	27
Germany	21	36
France	3	4
Switzerland	18	17
Italy	7	6
Japan	24	15
Other countries	8	8
	1,10	1,13

The trade in lace and embroidery is divided between Switzerland and Germany. The United Kingdom in 1925-26 supplied 10 per cent. and Japan 10 per cent. Towels not in the piece consist of very low grade face towels, and are drawn as to 9 per cent. from Japan. The United Kingdom sent 7 per cent. of better quality towels. The large heading of " other sorts " was contributed by the United Kingdom (43 per cent.), Germany (17 per cent.), Switzerland (12 per cent.), Japan (12 per cent.) and Italy (5 per cent.).

Boots and Shoes.— As a result of falling prices, the demand for imported boots and shoes has expanded of late years until it is now within measurable distance of pre-war figures, as the following table clearly shows :—

	Pre-war average.	War average.	1924-25.	1925-26.	1926-27.
Pairs (in 1,000)...	2,323	1,170	918	1,357	1,915
Rupees (in 1,000)	56,73	41,31	29,26	40,40	57,13

The average price per pair of shoes imported last year was Rs.2·98 (say 4*s.* 6*d.*).

The provenance of the imports was as follows :—

Countries of consignment.	1925-26.		1926-27.	
	Pairs.	Rs. (lakhs).	Pairs.	Rs. (lakhs).
United Kingdom	711,732	27	711,928	29
Japan	104,834	1	74,557	1
United States	187,917	5	573,939	14
Other countries	352,785	7	554,759	13
Total	1,357,268	40	1,915,183	57

The United Kingdom supplies approximately 90 per cent. of the imports of leather boots and shoes, the competition being entirely in shoes of other materials. The sharp advance last year in the arrivals from " other countries " is noteworthy. Details are not yet available, but in 1925-26 other countries included Austria, Japan and the Straits Settlements. Czechoslovakia is now a very keen competitor.

Leather. —The imports of unmanufactured leather were as follows :—

Description.	1925-26. Rs. (lakhs).	1926-27. Rs. (lakhs).
Hides, tanned or dressed	3	3
Skins, tanned or dressed	5	3
Unwrought	6	10
Leather cloth (including artificial leather)	4	4
	18	20

The United Kingdom and Ceylon continue to supply the tanned or dressed hides. The United Kingdom sent 53 per cent. of the unwrought leather and the United States 39 per cent. Tanned or dressed skins are obtained from the United Kingdom (57 per cent.) and the United States of America (31 per cent.). Leather cloth is drawn as to 82 per cent. from the United Kingdom and a small quantity from the United States. The principal business is in manufactured leather goods :—

Description.	1925-26. Rs. (lakhs).	1926-27. Rs. (lakhs).
Bags and trunks	1	1
Pickers	9	9
Picking bands and straps	7	9
Roller skins	9	8
Sadlery and harness	2	2
Other sorts	9	11

The imports of industrial leathers for the cotton and jute mills is essentially a British trade, although small shipments of picking bands and straps have lately been received from Holland, Ger-

many and France, and of pickers from Holland. Other sorts include fancy leather articles from the United States, Austria and Germany.

The following table shows the countries of consignment of the total imports of leather and leather goods.

Principal countries of consignment.	1925-26. Rs. (lakhs).	1926-27. Rs. (lakhs).
United Kingdom	42	43
Germany	2	2
Ceylon	1	1
United States	6	10
Other countries	3	4
	54	60

Belting for Machinery.—*Cotton Belting.*

Countries of origin.	1925-26. Rs. (lakhs.)	1926-27. Rs. (lakhs).
United Kingdom	15	14
Other countries	1	1
Total	16	15

Germany and the United States sent small quantities.

Leather Belting.

Countries of origin.	1925-26. Rs. (lakhs).	1926-27. Rs. (lakhs).
United Kingdom	24	22
United States	7	9
Other countries	3	2
Total	34	33

The United States is making an effort to increase her share of this trade, which is largely centred in Bombay. Favourable terms are granted by the American Makers to their Agents, and stocks are maintained in the country. The imports from other countries were from Germany and Japan.

Of Other Materials (including Coir).

Countries of origin.	1925-26. Rs. (lakhs).	1926-27. Rs. (lakhs).
United Kingdom	24	26
Germany	6	5
Other countries	3	3
Total	33	34

Bobbins.—The depression in the Bombay cotton industry and relatively quiet trade in the Calcutta jute industry is accountable for the slight falling-off in the imports of bobbins.

Origin.	1924-25. Rs. (lakhs).	1925-26. Rs. (lakhs).	1926-27. Rs. (lakhs).
United Kingdom	37	33	31
Other countries	6	5	4
Total	43	38	35

Germany has taken the place of Japan as the leading competitor, imports from the former in 1925-26 amounting to Rs.2½ lakhs, and from the latter country to Rs.1½ lakhs. Efforts to manufacture bobbins in India have, so far, not met with much success.

Books and Printed Matter. — The total imports were :—

	1924-25.	1925-26.	1926-27.
Rupees	64,46,661	56,87,578	56,60,183

In 1925-26 the United Kingdom supplied 86 per cent., the United States of America 7 per cent. and Germany 2 per cent. British publishing Houses are well represented, and maintain their position.

Stationery (*excluding Paper*).—The total trade fell by Rs.6 lakhs, the reduction being almost entirely borne by British suppliers.

Countries of consignment.	1924-25. Rs. (lakhs).	1925-26. Rs. (lakhs).	1926-27. Rs. (lakhs).
United Kingdom	51	51	45
Germany	18	24	25
Japan	5	5	4
United States	5	4	4
Other countries	2	4	4
Total	81	88	82

Importers of British goods find it almost impossible to compete in price with the cheap German and other Continental pencils, pens, etc., etc., which are flooding the bazaars. In the high-grade trade, British goods have a strong hold, but even here American manufacturers, by dint of advertising and canvassing by travellers, are creating a market for such specialities as fountain pens, Eversharp pencils, etc., etc. British firms who specialise in office stationery and requisites are meeting with success largely as a result of opening their own branches in the country or else of employing regular travellers.

Tobacco.— While other kinds of tobacco have remained fairly stationary, there has been an extraordinary increase in the imports of cigarettes during the past two years, a sign of the general prosperity of the country.

Description.	1924-25. lbs.	1925-26. lbs.	1926-27. lbs.
Unmanufactured tobacco	7,081,831	4,906,909	5,703,449
Cigars	32,930	39,727	33,002
Cigarettes	2,748,046	3,411,975	4,174,711
Tobacco for pipes and cigarettes	281,940	276,050	256,570
Other sorts	26,062	36,830	37,422
Total imports	10,170,809	8,671,491	10,205,154

The provenance of the imports of cigarettes was as follows :—

Countries of consignment.	1924-25. Rs. (lakhs).	1925-26. Rs. (lakhs).	1926-27. Rs. (lakhs).
United Kingdom	120·1	157	193
Aden and Dependencies	·5	·3	·3
Egypt	·7	·9	·9
United States	·3	·2	·2
Other countries	·2	·4	·2
Total	121·8	158·8	194·6

When to these figures is added the production of the cigarette making factories in India the immensity of the market will be realised.

Rubber Manufactures — *Rubber Tyres.—Pneumatic Motor Covers.*—The total number of tyres imported rose from 261,082 to 310,551, but owing to lower prices the values were reduced from Rs.123 lakhs to Rs.118 lakhs. The provenance of the imports was as follows :—

Countries of consignment.	1925-26. Rs. (lakhs).	1926-27. Rs. (lakhs).
United Kingdom	46	42
Germany	7	5
France	17	26
Italy	17	5
Canada	12	12
United States	23	28
Other countries	1	(*a*)
Total	1,23	1,18

(*a*) Less than 1 lakh.

The admirable organisation of the Dunlop Company puts them in a strong position, but competition is very keen, and French, American, Continental, and other British groups are all actively pushing their productions. All the principal competitors work on the same list price, but there are constant rumours of price-cutting

by sub-agents in the country districts. Service is the keynote in the tyre trade, and a great deal remains to be done in this respect by British manufacturers.

The reduction of the import duty from 30 to 15 per cent. should give a fillip to the trade, and a considerable increase is confidently expected during the next few years.

Pneumatic Motor Cycle Covers.

	1925-26. Rs. (lakhs).	1926-27. Rs. (lakhs).
United Kingdom	1·4	1·3
United States	·2	·1
Other countries	·1	·4
Total	1·7	1·8

The predominance of British machines gives British tyre makers a strong hold.

Pneumatic Cycle Covers.

	1925-26. Rs. (lakhs).	1926-27. Rs. (lakhs).
United Kingdom	8·7	7·1
Germany	1·7	·5
France	3·4	5·8
Other countries	1·0	·6
Total	14·8	14·0

Competition from France is still keen in pedal cycle covers.

Solid Rubber Tyres for Motor Vehicles.

	1925-26. Rs. (lakhs).	1926-27. Rs. (lakhs).
United Kingdom	5·5	7·0
Germany	2·0	·8
United States	4·4	3·5
Other countries	1·6	·3
Total	13·5	11·6

Tubes.

	1925-26. Rs. (lakhs).	1926-27. Rs. (lakhs).
Pneumatic motor tubes	27	24
„ motor cycle tubes	·5	·5
„ cycle tubes	8·3	9·4

Other manufactures of Rubber (except apparel and boots and shoes).—The total imports amounted to :—

	1924-25.	1925-26.	1926-27.
Rupees	25,63,127	27,99,616	31,28,436

This heading includes mechanical rubbers of all kinds, brake fittings, hose, etc., etc. British manufacturers are well represented and secure 56 per cent. of the trade. Competition is met from the United States (21 per cent.) and Germany (11 per cent.).

Instruments, Apparatus, Appliances and Parts Thereof.—This comprehensive classification is made up as follows:—

Description.	1925-26. Rs. (lakhs).	1926-27. Rs. (lakhs).
Electrical apparatus, etc.	2,25	2,52
Musical instruments	23	27
Optical instruments	8	8
Photographic :—		
Cinematograph films	21	23
Photographic other than cinematograph films	17	23
Scientific instruments	23	22
Surgical instruments	17	21
Wireless apparatus	5	4
Other kinds	14	21
Total imports	3,53	4,01

Musical instruments are about equally divided between the United Kingdom and Germany with smaller quantities from the United States of America and Switzerland.

Optical instruments are principally obtained from Germany, but the United States of America and Japan have a considerable trade in spectacle lenses and frames. The United Kingdom only sends about 15 per cent.

Cinematograph Films.—In 1925/6, the United Kingdom supplied 34 per cent., the United States of America 45 per cent., Germany 8 per cent. and Italy 5 per cent. The British share does not give the true position, as it includes many American films shipped from London. Nevertheless, British films are increasing in number and popularity.

Photographic instruments.—The United Kingdom furnishes 46 per cent. of this trade, the United States of America 34 per cent. and Germany about 9 per cent. American and German competition is increasing, and the Kodak Company give excellent service on the spot.

Scientific instruments (including cinematograph films.)—The United Kingdom supplies two-thirds of the trade, Germany 20 per cent. and the United States of America 8 per cent.

Surgical instruments.—Great Britain still sends 60 per cent. of the surgical instruments, but the German share has risen to over 25 per cent. and the United States of America supplies 12 per cent. British makers are actively represented by their own resident employees, but German instruments are frequently bought where price is the main desideratum.

Wireless Apparatus.—The Indian Broadcasting Company commenced broadcasting from their Bombay station on July 23rd, 1927, and the Calcutta station will be opened in August, 1927. This should give a great impetus to the imports of wireless receiving sets. British manufacturers who may be interested should apply to the Department of Overseas Trade for a list of the licensed importers of wireless apparatus.

The imports during the past two years were as follows :—

Origin.	1925-26. Rs. (lakhs).	1926-27. Rs. (lakhs).
United Kingdom	4·6	4·3
United States	·9	·4
Other countries	·5	·3
Total	6·0	5·0

Other countries include Germany and France.

Electrical Apparatus is the most important item in this group. The following statement gives the value and origin of the several classes of electrical apparatus imported during the last two years :—

Description of Electrical Apparatus.	1925-26. Rs. (lakhs).	1926-27. Rs. (lakhs).
Electric fans and parts thereof	28	32
Electric wires and cables	77	81
Telegraph and telephone instruments ...	8	5
Electric lamps and parts thereof	28	39
Batteries	9	10
Carbons, electric	1	1
Accumulators	12	17
Electric lighting accessories and fittings including switches	16	15
Meters	6	6
Electric-medical apparatus (including X-ray apparatus)	3	2
Switchboards (other than telegraph and telephone)	3	4
Unenumerated	34	40
Total imports of all kinds	2,25	2,52

The provenance of the total imports was as follows :—

Principal countries of consignment.	1925-26. Rs. (lakhs).	1926-27. Rs. (lakhs).
United Kingdom	1,52	1,69
Germany	22	22
Netherlands	8	10
Italy	7	7
Japan	3	2
United States	23	33
Other countries	10	9
Total imports	2,25	2,52

The marked increase in shipments from the United States of America is due to larger imports of American lamps, cables and batteries. German competition is mainly in miscellaneous accessories and fittings, wires and cables and lamps. Holland supplies a very large share of the electric glow lamps imported. It is satisfactory to note that the British share still remains at over two-thirds of the whole.

Earthenware and Porcelain.—This classification includes :—

Article.	1925-26. Rs. (lakhs).	1926-27. Rs. (lakhs).
Earthenware :—		
Pipes of earthenware	3	1
Sanitary ware	5	7
Other kinds	42	46
Porcelain :—		
Electrical	3	1
Other kinds	24	28
Total imports	77	83
Of which from :—		
The United Kingdom	29	30
Japan	35	33
Other countries	13	20

Earthenware pipes are almost exclusively drawn from the United Kingdom, which also supplies 98 per cent. of the sanitary ware. The large heading of " other kinds " of earthenware, which includes crockery, tableware, etc., was in 1925-26 contributed to by the United Kingdom (44 per cent.), Japan (33 per cent.), Germany (8 per cent.). It should be noted, however, that most of the imports from Holland and Belgium were probably German goods shipped from Rotterdam and Antwerp. The true German share is probably about 14 per cent. The imports from Japan are practically non-competitive so far as the United Kingdom is concerned.

The imports of electrical porcelain in 1925-26 were almost all obtained from Belgium (probably of German manufacture), and mostly imported through Rangoon into Burma. Other kinds of porcelain were supplied by Japan (80 per cent.), the United Kingdom (10 per cent.) and Germany (6 per cent.). The principal ports of entry in order of importance are Bombay, Rangoon, Calcutta and Karachi.

Glass and Glassware.—The following table shows the types of glass and glassware imported :—

Description.	1925-26. Rs. (lakhs).	1926-27. Rs. (lakhs).
Bangles	1,01	85
Beads and false pearls	36	31
Bottles and phials	38	39
Funnels, globes and glass parts of lamps ...	15	19
Scientific glassware	3	2
Sheet and plate glass	28	32
Tableware	10	9
Other glassware	28	36
Total imports	2,59	2,53

Of which from :—		
United Kingdom	26	26
Germany	40	52
Belgium	23	27
Austria	3	4
Czechoslovakia	83	63
Italy	8	6
Japan	67	66
Other countries	9	9

Glass bangles are practically a monopoly of Czechoslovakia and Japan. Beads and false pearls are drawn from the same sources, with lesser quantities from Italy and Germany. The United Kingdom is not concerned with these two items.

Soda water bottles are approximately divided between the United Kingdom and Germany, the latter country rapidly increasing her share. Other kinds of bottles are drawn from Japan (42 per cent.), Germany (30 per cent.) and the United Kingdom (19 per cent.). There is scope for greater activity in India by the British bottle-manufacturing concerns. Germany supplies 50 per cent. of the funnels, globes and glass parts of lamps, the United States of America 20 per cent., Japan 17 per cent., and the United Kingdom a trivial 2 per cent. (only £2,380 worth). In scientific glassware, Germany supplied 44 per cent., Japan 27 per cent., the United Kingdom 24 per cent. The imports of sheet and plate glass are mainly supplied by Belgium 66 per cent. and the United Kingdom 31 per cent. British makers ship the better qualities, and the Belgian shippers supply the large bazaar demand for cheap window glass. Tableware is drawn from Japan (63 per cent.), Germany (14 per cent.), Belgium (10 per cent.) and the United Kingdom (9 per cent.).

Building and Engineering Materials (*other than Iron, Steel and Wood*).—Notwithstanding the steady fall in the imports of cement, the total trade advanced during the year under review. The principal items in the classification are the following :—

Description.	1925-26. Rs. (lakhs).	1926-27. Rs. (lakhs).
Asphalt	13	24
Bricks (other than firebricks)	—	1
Firebricks	3	3
Cement—		
Portland	62	56
Other kinds	3	2
Tiles	24	25
Other kinds	14	13
Total Imports	1,19	1,24

Detailed figures of the imports of asphalt are not available for the past year, but in 1925-26 the United States supplied 61 per cent., Holland 28 per cent. and the United Kingdom 11 per cent. There were no imports from Trinidad during that year. The

market for asphalt is likely to increase considerably with the improvement and extension of roads throughout the country. Firebricks are almost entirely imported from the United Kingdom. Tiles are supplied by Italy (34 per cent.), the United Kingdom (31 per cent.), Belgium (18 per cent.) and France (7 per cent.).

Cement.—The imports of cement were obtained from the following sources :—

Countries of consignment.	1925-26.		1926-27.	
	Tons.	Rs. (lakhs).	Tons.	Rs. (lakhs).
United Kingdom	94,584	57	76,342	44
Germany	3,398	2	9,199	5
Japan	5,720	2	9,309	4
Other countries	6,676	4	10,186	5
Total	110,378	65	105,036	58

There is likely to be a steady decline in the imports of cement in view of the increased production in India. Local cement works can produce cement fully equal to the British standard specification, and the Indian product is being increasingly used in the large schemes of public works.

Hardware (*excluding Cutlery and Electro-plated ware*).—There was a reduction of nearly Rs. 13 lakhs in the local trade, but last year's aggregate of Rs.507 lakhs is well above the pre-war annual average of Rs.317 lakhs. The principal reductions were in metal lamps and miscellaneous types.

The figures are as follows :—

Articles.	1925-26. Rs. (lakhs).	1926-27. Rs. (lakhs).
Agricultural implements	16	17
Buckets of tinned or galvanised iron ...	2	1
Builders' hardware	31	34
Domestic hardware, other than enamelled ironware	10	10
Enamelled ironware...	41	40
Gas mantles	7	6
Implements and tools (other than agricultural implements and machine tools) ...	71	79
Lamps, metal	91	84
,, glass	1	1
Parts of lamps other than glass	6	7
Safes and strong boxes of metal	3	3
Stoves	11	9
Other sorts	2,30	2,16
Total Imports	5,20	5,07

Of which from :—		
The United Kingdom	1,98	1,85
Sweden	17	15
Germany	1,43	1,58
Austria	13	13
Japan	37	29
United States	81	72
Other countries	31	35
Total	5,20	5,07

The next table of percentage shares shows the position of the leading suppliers over a period of years :—

	1913-14 (pre-war year). Per cent.	1923-24. Per cent.	1924-25. Per cent.	1925-26. Per cent.	1926-27. Per cent.
United Kingdom	57	47	40	38	36
Germany ...	18	21	27	27	31
United States ...	10	16	16	16	14
Japan	1	6	5	7	6
Other countries	14	10	12	12	13
Total ...	100	100	100	100	100

The reasons for the steady decline in the British share and the remarkable progress made by Germany require more detailed treatment than can be given here, and will be found in Chapter II. The following notes give the statistical position in each section of the trade.

Agricultural Implements.—The total value of the trade, which does not exceed £120,000, proves that the Indian cultivator does not use imported implements to any extent and obtains his simple tools from the local village blacksmith. The agricultural implements which come under this heading are mostly hoes (known locally as Kodalies or Mamooties), forks, etc., etc., used by the tea gardens of Assam and Southern India. In 1925-26, the last year for which particulars are available, the United Kingdom supplied 88 per cent. and the United States 9 per cent. Now that the Agricultural Implements Co. Ltd., of Jamshedpur, has been taken over by the Tata Iron and Steel Co. Ltd., it is possible that their competition will be more severely felt. They turn out picks, kodalies, powrahs, hammer heads, etc., etc., of fair quality.

Galvanised Iron or Tinned Buckets.—Owing to the local manufacture of buckets from imported sheets, this trade is reduced to a very small total, and the imports are almost all into Rangoon. The United Kingdom has 92 per cent. of the trade.

Builders' Hardware, such as Locks, Hinges, Door Bolts, etc. —The imports are drawn from the United Kingdom (23 per cent.),

Germany (46 per cent.), the United States of America (14 per cent.), Sweden (13 per cent.). The bazaars are full of cheap Continental productions usually below the British article in quality, but so far below it in price that dealers cannot afford to pay the premium required for the better quality.

Domestic Hardware.—A very similar state of affairs is to be found in this trade. In 1925-26 the United Kingdom shipped 40 per cent., Germany 35 per cent., and lesser values were obtained from the United States, Japan, Sweden and Austria.

Enamelled Ironware.—There has been a considerable advance in this trade of late years. In 1925-26, Japan sent 60 per cent., Germany 18 per cent., the United Kingdom 9 per cent., Czechoslovakia 6 per cent. and Austria 4 per cent. The Japanese are rapidly overhauling the Continent in this trade. The principal markets are Burma, Bengal and Bombay.

Gas Mantles.—Last year Germany sent 57 per cent., the United States of America 20 per cent. and the United Kingdom 18 per cent. Bombay, Rangoon and Calcutta are the principal markets.

Metal Lamps.—In pre-war days, Birmingham makers enjoyed a valuable trade in hurricane lamps and house lamps of all kinds. They have, however, been driven off the market by the cheap German and American lamps, and only supply a very small trade in the higher grade types. In 1925-26 Germany had 50 per cent. of the total trade, the United States 36 per cent., Austria 8 per cent., and the United Kingdom a paltry 2½ per cent!

Safes and Strong Boxes of Metal.—There has been a steady reduction for some years now in the imports of safes and metal strong boxes owing to the increasing output of safes of fairly good quality in Bombay and the production of serviceable metal despatch boxes and small safes at Multan in the Punjab. Moreover, the British share of the import trade has fallen during recent years. In 1925-26 the United Kingdom supplied 37 per cent., Austria 25 per cent., Germany 22 per cent. and Italy 7 per cent. Bankers' safes and strong rooms and the higher grades of safes are still supplied by well-known British houses, but the cheap safe for the bazaar is usually of German or Austrian make. The Burma market for safes has developed rapidly of late years.

Stoves.—The Indian market for stoves has increased of recent years. The imports are mainly through Bombay and Karachi, and are distributed throughout North-West India, which has a cold winter. The Swedish types hold the market. In 1925-26 Sweden supplied 72 per cent., the United Kingdom 11 per cent. and Germany 9 per cent.

Other Sorts.—This omnibus heading accounts for 42 per cent. of the whole, and comprises a wide assortment of metal articles

and tools of all kinds, which it is impracticable to classify separately. In 1925-26 the United Kingdom supplied 50 per cent., Germany 23 per cent., the United States 10 per cent. and Japan 5 per cent.

Cutlery.—The classification distinguishes between pruning knives and other kinds as follows :—

	1924-25. Rs. (lakhs).	1925-26. Rs. (lakhs).	1926-27. Rs. (lakhs).
Pruning knives	2	2	2
Other kinds	38	31	39
Total Imports ...	40	33	41
Of which from :—			
The United Kingdom ...	11	9	9
Germany	27	22	30
Other countries	2	2	2
Total	40	33	41

Pruning knives are drawn almost exclusively from the United Kingdom, the only foreign import in 1925-26 being a small shipment from Germany of £150 worth. The demand for high grade cutlery is still met from Sheffield, but the bazaar trade is entirely based on cheap price, and the Solingen products control the market. As an illustration of how difficult it is for British firms to compete, I would cite the case of a well-known Sheffield quality which sells at Rs. 10/12 per dozen, but is being ousted by a German brand selling at Rs. 2/3/- per dozen. The British quality is, of course, greatly superior, but the German knife " will do," and price tells. The bazaar dealer might be willing to pay 15 per cent. to 20 per cent. more for British quality, but beyond that he will not go. It is interesting to note that even the old-established German brands are being undersold by 20 per cent. to 30 per cent. by other German firms willing to sacrifice profit in order to enter the market.

Polishes.—The aggregate trade was slightly reduced during the year. The statistics are :—

Article.	1924-25. Rs. (lakhs).	1925-26. Rs. (lakhs).	1926-27. Rs. (lakhs).
Leather polish	14	15	13
Metal polish	6	6	5
Wood polish	1	1	1
Other sorts	†	†	2
Total Imports	21	22	21

† Not separately distinguished.

The trade shows á progressive growth, and it is satisfactory to note that no less than 91 per cent. is supplied by the United Kingdom. British manufacturers are well represented, and in 1925-26

secured 91 per cent. of the leather polish, 93 per cent. of the metal polish, and 89 per cent. of the wood polish. There is competition from the United States of America in leather polishes, from the United States of America and Germany in metal polishes, and from the United States of America in wood polish.

Arms, Ammunition and Military Stores. — This comprehensive heading is made up as follows—

Description.	1925-26. Rs. (lakhs).	1926-27. Rs. (lakhs).
Cartridge cases	32	16
Explosives	21	22
Firearms and parts thereof	29	24
Gunpowder	2	1
Other sorts	5	5
Total Imports	89	68

Filled cartridge cases during the past year were obtained from the United Kingdom (80 per cent.) and the United States of America (13 per cent.), and amounted to Rs.15 lakhs. Empty cartridge cases totalled only Rs.69,000, and were drawn from the United Kingdom (Rs.51,000) and other countries (Rs.18,000).

Explosives is also very largely a British trade. The United Kingdom supplied in 1925-26 no less than 96 per cent., the only foreign import being Rs.82,000 worth from Germany.

Firearms are imported from the United Kingdom (62 per cent.), the United States of America (8 per cent.), Germany (14 per cent.), Czechoslovakia (7 per cent.) and Belgium (7 per cent.). There has been a marked increase in the imports from Germany of cheap rifles and shotguns, which have, to some extent, displaced British and American productions. The United Kingdom supplies all the gunpowder.

In addition to this trade, mention should be made of Rs.24 lakhs worth of arms ammunition and military stores imported on Government Account.

Brushes and Brooms—These include:—

	1925-26. Rs. (lakhs).	1926-27. Rs. (lakhs).
Paint and varnish brushes	2·5	3·4
Toilet brushes	4·8	4·3
Other brushes	4·5	4·7
Brooms	·4	·4
Total Imports	12·2	12·8

In paint and varnish brushes, British makers secure 86 per cent. and Germany 12 per cent. In toilet brushes, however, the United States supplies 42 per cent. of the trade, followed by Germany (31 per cent.), the United Kingdom (12 per cent.) and Japan

(9 per cent.). Other brushes for industrial and general use are drawn from the United Kingdom (47 per cent.), Germany (25 per cent.) and the United States of America (17 per cent.). The small trade in brooms is supplied by the United Kingdom, Straits Settlements and the United States of America.

Toys and Requisites for Games and Sports. — There was a marked increase during the year.

	1924-25.	1925-26.	1926-27.
Rupees	59,06,069	54,27,078	62,11,178

Toys account for about two-thirds of the whole, and are obtained from Germany (40 per cent.), Japan (33 per cent.), the United Kingdom (15 per cent.) and the United States of America (7 per cent.).

Playing cards were imported in 1925-26 to the extent of Rs.10 lakhs. The United States of America contributed 52 per cent., Belgium 34 per cent. and the United Kingdom only 5 per cent.

Requisites for games and sports were imported in 1925-26 to the amount of Rs.9½ lakhs. The United Kingdom sent Rs.7 lakhs, Norway Rs.1 lakh, Germany Rs.½ lakh, and lesser values were received from the United States and Japan. Indian manufacturers at Sialkot and other places are now keenly competing not only in the home trade, but they exported last year nearly Rs.3 lakhs worth.

Tea Chests (*entire or in sections*).—There has been a fall from the record figures during the boom in the trade in 1924-25.

Countries of consignment.	1924-25. Rs. (lakhs).	1925-26. Rs. (lakhs).	1926-27. Rs. (lakhs).
United Kingdom	75	68	49
Russia	1	—	—
Finland	11	14	9
Esthonia	2	—	3
Other countries	4	3	2
Total	93	85	63

Germany shipped most of the chests under the heading "other countries." The imports of Japanese Momi chests, which were such a feature during and immediately after the war, have now ceased owing to the competition of the Venesta and and other improved makes.

Umbrellas and Umbrella Fittings. — The imports of complete umbrellas, including parasols and sunshades, were as follows :—

Countries of consignment.	1925-26.		1926-27.	
	No.	Rs. (lakhs).	No.	Rs. (lakhs).
United Kingdom	264,469	8	215,896	6
Japan	8,839	(*a*)	7,447	(*a*)
Other countries	57,212	1	46,222	1
Total	330,520	9	269,565	7

(*a*) Less than 1 lakh.

The imports of complete umbrellas will probably show a tendency to fall away, as umbrellas are being more and more made up in the country from imported cloth and fittings.

Umbrella fittings were imported as follows:—

Countries of consignment.	1924-25. Rs. (lakhs).	1925-26. Rs. (lakhs).	1926-27. Rs. (lakhs).
United Kingdom	13	10	9
Germany	12	17	21
Japan	14	13	14
Other countries	1	1	1
Total...	40	41	45

Germany is rapidly strengthening her hold on this trade at the expense of the United Kingdom and Japan.

Jewellery and Plate of Gold and Silver (*excluding imitation Jewellery, Precious Stones and Pearls unset*).

Article.	1925-26. Rs. (lakhs).	1926-27. Rs. (lakhs).
Jewellery	13	31
Plate of gold and silver	6	7
	19	38

Fifty-eight per cent. of the imports of jewellery were obtained from the United Kingdom in 1925-26, and the remainder from France, Ceylon and Germany. Of the gold and silver plate, the United Kingdom sent 75 per cent., and the balance was obtained from Germany, France, Ceylon and China. The heavy import duty of 30 per cent. tends to check any development in this trade.

Electro-Plated Ware.—The imports were:—

	1924-25.	1925-26.	1926-27.
Rupees	4,86,995	5,34,982	6,65,327

This is predominantly a British trade (88 per cent.). Small shipments were received from Germany and Italy.

Carriages and Carts (excluding Railway Carriages) and Parts thereof.—The total imports were :—

	1924-25.	1925-26.	1926-27.
Rupees	27,55,677	15,76,581	19,48,847

The United Kingdom supplies 44 per cent. and Japan 40 per cent. (probably jinrickshaws) of the complete vehicles imported. The small trade in perambulators and go-carts is British.

Oil Cloth and Floor Cloth. — The imports remain steady at about Rs.9 lakhs worth per annum, of which Rs.5½ lakhs are obtained from the United Kingdom, and Rs.3 lakhs from the United States.

Furniture and Cabinetware.

	1924-25.	1925-26.	1926-27.
Rupees	15,45,787	22,00,397	29,68,275

In 1925-26 the United Kingdom sent 41 per cent., Germany 28 per cent., the United States of America 10 per cent., Italy 6 per cent. and Japan 5 per cent. American competition is largely in camp furniture of patent design.

Matches.— The United Kingdom does not export matches to India on a commercial scale, but a large proportion of the capital which has been sunk in the Indian factories of the Swedish Combine was obtained on the London market, and the figures for the past year may be of interest :—

Principal countries of consignment.	1925-26.		1926-27.	
	Gross.	Rs. (lakhs).	Gross.	Rs. (lakhs).
Sweden	4,846,636	61	4,520,576	57
Norway	85,801	1	125,951	2
Czechoslovakia	502,675	5	319,525	3
Japan	2,290,532	25	951,736	11
Other countries	211,878	2	217,080	2
Total	7,937,522	94	6,134,868	75

The Swedish Combine have modern factories in the principal markets of India and a widespread sales organisation. It may be confidently expected, therefore, that they will secure a rapidly increasing share of the trade, and that imports will decline. The Indian Tariff Board are, at present, considering the whole question.

Packing (Engine and Boiler) of all kinds excluding Asbestos.

	1924-25.	1925-26.	1926-27
Rupees	3,95,604	6,26,170	4,01,848

The United Kingdom usually supplies over 90 per cent. of this trade, but in 1925-26 France for the first time sent a large shipment of Rs.2,67,943 which reduced the United Kingdom proportion to 50 per cent.

Toilet Requisites. — This is a comprehensive heading, including all articles for toilet use not separately classified elsewhere. The statistics are :—

	1924-25.	1925-26.	1926-27.
Rupees	45,11,419	49,56,366	57,02,163

In 1925-26 the United Kingdom supplied 43 per cent., the United States of America 29 per cent., Germany 8 per cent., Japan 7 per cent. and France 5 per cent.

Articles Imported by Post (*not included elsewhere*).—This large item amounts to nearly £3,000,000 in value :—

	1924-25.	1925-26.	1926-27.
Rupees	3,28,33,900	3,48,78,820	3,72,04,496

In 1925-26 the United Kingdom sent 78 per cent., Italy 5 per cent., and considerable values were contributed by Egypt, Germany, Belgium, France and Switzerland.

The exchange of cash-on-delivery parcels between India and Great Britain and Northern Ireland was introduced in 1920-21, and has grown steadily. The following are the latest figures of C.O.D. parcels received from Great Britain and Northern Ireland in 1924-25 and 1925-26 :—

Year.	Number.	Value.
1924-25	79,433	£219,743
1925-26	95,030	£279,934

This system has been found to be of advantage to United Kingdom stores and mail-order firms, and is undoubtedly a convenience to residents in India.

RAW MATERIALS AND SEMI-MANUFACTURED ARTICLES.

Coal and Coke. — The effect of the long coal strike in the United Kingdom is shown in the reduction of imports from that country to a trifling amount, and is also reflected in a falling-off in the arrivals from South and Portuguese-East Africa.

Countries of consignment.	1925-26.		1926-27.	
	Tons.	Rs. (lakhs).	Tons.	Rs. (lakhs).
United Kingdom	97,172	26	12,908	3
Union of South Africa ...	115,216	26	85,788	19
Portuguese East Africa ...	125,921	28	25,521	5
Australia	11,961	3	12,613	3
Other countries	22,034	5	4,903	1
Total	372,304	88	141,733	31

Largely as a result of the activities of the Coal Grading Board, which was set up on the recommendations of the Indian Coal Commission, Bengal coal is meeting with more success in the Bombay market, and also in the export trade. The following are the average prices per ton of Bengal, Cardiff and Natal coal in the Bombay market in 1925 and 1926 :—

	Bengal. Per ton.			Cardiff. Per ton.			Natal. Per ton.		
	Rs.	As.	Ps.	Rs.	As.	Ps.	Rs.	As.	Ps.
1925	19	6	3 (*a*)	29	3	0 (*a*)	21	15	3 (*a*)
1926 (6 months) ...	19	6	8 (*a*)	24	6	1 (*b*)	19	8	7 (*b*)

(*a*) ex sales.

(*b*) c.i.f. sterling quotations converted into rupees at current rates of exchange.

Mineral Oils. — The following are the latest statistics of this valuable trade :—

Kerosene Oil.

Countries of consignment.	1925-26. Rs. (lakhs).	1926-27 Rs. (lakhs).
Georgia	24	—
Straits Settlements (including Labuan) ...	29	18
Sumatra	11	3
Borneo	59	31
United States	3,88	3,77
Other countries	6	—
Total Imports	5,17	4,29

The cessation of imports from the Caucasus is noteworthy.

Fuel Oils.—The imports were :—

Countries of consignment.	1925-26. Rs. (lakhs).	1926-27. Rs. (lakhs).
Persia	1,46	1,33
Straits Settlements (including Labuan) ...	7	12
Borneo	58	50
Other countries	—	—
Total	2,11	1,95

Lubricating Oils.—Batching oils for use in the jute mills of Bengal were imported to the extent of Rs.72 lakhs, principally from Dutch Borneo and the United States of America. Other lubricating oils were derived as follows :—

Origin.	1924-25. Rs. (lakhs).	1925-26. Rs. (lakhs).	1926-27. Rs. (lakhs).
United Kingdom	17	16	14
United States	1,42	1,25	1,20
Other countries	5	15	13
Total	1,64	1,56	1,47

The leading American Companies, such as the Vacuum and the Valvoline, have very strong organisations, and it is somewhat dfficult to make headway against them.

Salt. — Although India produces most of the salt it consumes, there is a considerable import into the two provinces of Bengal and Burma.

Principal countries of consignment.	1925-26.		1926-27.	
	Tons.	Rs. (lakhs).	Tons.	Rs. (lakhs).
United Kingdom	103,873	20	53,598	14
Germany	40,103	9	57,941	15
Spain	48,341	9	57,332	14
Aden and Dependencies ...	184,514	33	175,173	38
Egypt	118,489	23	132,455	30
Italian East Africa	50,867	8	54,551	12
Other countries	13,954	2	6,763	2
Total	560,141	1,04	537,813	1,25

The reduction in the British share is probably due to the effects of the coal stoppage.

Sugar.— Sugar is the second largest item of import into India, being exceeded only by cotton manufactures. In spite of attempts to stimulate cane cultivation in the country, the consumption of the immense vegetarian population is so enormous that increased indigenous production seems to have had little effect on the imports. The subjoined table shows the imports of 16 Dutch Standard and above (excluding beet) :—

Principal countries of consignment.	1925-26. Rs. (lakhs).	1926-27. Rs. (lakhs).
United Kingdom	6	13
Netherlands	1	3
Belgium	4	4
Ceylon	3	5
Straits Settlements	6	3
Java	13,40	13,55
China (including Hongkong)	7	7
Mauritius	48	—
United States	4	26
Total Imports (all sources) ...	14,25	14,42

The cessation of imports from Mauritius and the increased arrivals from the United States of America are noteworthy. The principal ports of entry in order of importance are Calcutta, Karachi, Bombay, Madras and Rangoon.

Beet Sugar.—The imports of beet sugar have been a feature of the last few years. The figures are :—

Principal countries of consignment.	1925-26. Rs. (lakhs).	1926-27. (Rs. lakhs).
United Kingdom	8	7
Poland	—	34
Germany	3	1,06
Netherlands	1	5
Belgium	11	26
Italy	2	7
Fiume	—	4
Austria	4	19
Hungary	42	59
Czechoslovakia	21	64
Other countries	1	55
Total	93	3,86

The German imports advanced by over a crore, and the increases in the case of Czechoslovakia, Poland and Hungary are worthy of note. The principal ports of entry were Karachi and Bombay, with a much lesser quantity through Calcutta.

The following table gives the other types of sugar imported :—

Description.	1925-26. Rs. (lakhs).	1926-27. Rs. (lakhs).
Sugar, 15 Dutch standard and below ...	2	8
Molasses	38	53
Confectionery	25	27
Saccharine	—	—

The imports of molasses are all drawn from Java. Confectionery, however, is an important British export. In 1925-26, of a total of Rs.25 lakhs, the United Kingdom supplied Rs.21 lakhs, or 85 per cent., Switzerland contributed 5 per cent., and lesser quantities were received from Japan, the Netherlands and United States of America.

For supplementary tables giving particulars of the import trade to 30th September, 1927, see Appendix IV.

APPENDIX I.

(APPENDIX TO CHAPTER I.)

INDIAN TAXATION ENQUIRY COMMITTEE.

SUMMARY OF THE COMMITTEE'S CONCLUSIONS.

The following is a summary of the more important of the conclusions arrived at by the Committee :—

The Scope of the Problem.—(1) The sources of the revenue of a State have been classified by modern writers on the following lines :— (*a*) State domains and tributes, (*b*) Fines and penalties, (*c*) Business undertakings and monopolies, (*d*) Fees, (*e*) Taxes.

(2) In order to determine which items of revenue fall within the scope of their enquiry, the Committee have adopted the following definition of taxation as a working basis : " Taxes are compulsory contributions made by the members of a community to the governing body of the same towards the common expenditure, without any guarantee of a definite measured service in return."

(3) The Committee do not consider revenues from State domains, from fisheries and mines or forests. The land revenue has some of the characteristics of a rent as well as of a tax, but they have been specifically instructed to enquire into its incidence and they therefore include it.

(4) Fines and penalties are of two kinds :—

(i) those imposed in connection with regulation of revenue, which the Committee treat as taxes;

(ii) those imposed primarily for purposes of restraint, which they do not.

(5) There is no agreement among economists as to the classification of revenue from State undertakings. In determining the element of taxation in the net profits from railways, posts and telegraphs and opium, profits on coinage, irrigation receipts, and receipts from enterprises of local authorities, the Committee have been largely guided by practical considerations.

(6) As regards fees, where the utilisation of services is rendered compulsory by legislation, there is an element of taxation, but the element of payment for services still prevails. When the fees exceed the value of the services, there is true taxation.

Capitation and Apportioned Taxes.—(7) Poll taxes are open to the obvious objection that they are regressive in character; they are far more common than is generally supposed in Europe, in America, in the British Empire, and in Eastern countries; but they have ceased to be important sources of revenue in the more advanced States.

(8) The principal taxes of this nature that now survive in India are confined to Burma.

(i) The " thathameda " of Upper Burma is theoretically not a poll tax, but in many parts operates as one.

(ii) The capitation tax of Lower Burma, being a poll tax at a flat rate, operates with less discrimination than the " thathameda," and has never lost the stigma which attached to it when it was imposed by the Burmese Kings as a tax on conquered races.

(9) The grant of the option to local bodies under the Burma Rural Self-Government Act of 1921 of converting these taxes into a circumstances and property tax is an appropriate way of providing for their extinction. The Committee recommend that the process of conversion should be expedited.

(10) The proposed tax on sea passengers, which seems likely to operate as a tax on transport and to impose a check on the flow of labour from province to province, is regarded as a development in the wrong direction.

(11) The endeavours made to replace the arrangements under which the villagers tax themselves for watch and ward have led to confusion and inequality.

(12) The " chowkidari " and other taxes still levied in certain provinces for this purpose are theoretically unobjectionable, but are complained of in practice. The conversion of these also into sources of local taxation, subject to proper control, is recommended as a desirable development.

THE LAND REVENUE.

Part I—Revenue from agricultural land.

(13) From a survey of the systems of land taxation in other countries it would appear that the tendencies of modern development are as follows:—

(i) The flat rate of tax on annual or capital value is kept comparatively low.

(ii) Incomes from and property in land are treated for purposes of income tax and death duties on exactly the same footing as other incomes and property

(iii) Where an increasing share has been taken of the return from land, it has generally been taken for local purposes.

(14) The Indian systems are the result of a gradual process of evolution from indigenous practices, and they have been moulded into their present shape by British officers quite independently of one another to suit local circumstances in different provinces.

(15) Except in British Baluchistan, the land revenue has ceased to represent a portion of the gross produce. In the United Provinces, the Punjab and the Central Provinces the Government demand is theoretically based on economic rent, but actually takes many other factors into consideration. In the case of Madras and Burma the assessment is theoretically based on the net produce, while in Bombay the rate of assessment is arrived at empirically with reference to general economic considerations, and in practice is based rather on the actual rents paid than on any theoretical calculations of the net produce.

(16) The Committee are divided in opinion as to whether or not the land revenue should be regarded as a tax on the individual who pays it, but they are agreed that, since it forms a deduction from the national dividend, it should be taken into consideration in dealing with the question of the incidence of taxation on the country as a whole.

(17) Application of the canons of taxation to the land revenue.

(i) *Certainty.*—This canon is satisfied.

(ii) *Convenience.*—Convenience has in some respects been sacrificed to certainty.

The inelasticity of the systems drives a number of people to the money-lender during bad seasons.

The system of making settlements that last for a generation may necessitate a change in the standard of living when the period comes to a close.

When the process of settlement continues for years and involves meticulous enquiry by a large staff, the inconvenience and expense to the ryots concerned is very considerable.

(iii) *Economy.*—The application of this canon cannot be decided on considerations relating to the land revenue alone. If the assessment and collection of the land revenue were the only matter in issue, it would be practicable to devise a scheme under which the present revenue could be collected at a much smaller cost. The justification of the high cost of the settlement and collectorate establishments must be looked for in directions that are outside the scope of the Committee's terms of reference.

(iv) *Ability*.—Land revenue is essentially a tax on things and not on persons, and as such it is not a tax to which the doctrine of progression can be applied. The Committee therefore confine their attention to the question of the burden of the land revenue on the land, in other words, the proportion which the Government demand bears to the economic rental or net profits in the different provinces. Even in this respect they are unable to discover any acceptable basis of comparison, and are forced to the conclusion that the uncertainty as to both the basis of the assessment and the rate is one of the chief respects in which the systems are open to criticism.

(18) The results flowing from the fact that land revenue viewed as a scheme of taxation is not only not progressive, but actually tends in the opposite direction, are aggravated by the conspicuous absence of provision for an income tax on agricultural incomes or a death duty, which serve in the more advanced European countries and Japan to introduce an element of progression into the taxation of the land.

(19) Of the alternatives suggested, the proposals for the redemption of the land revenue either in part or in whole, or for the substitution for it of a tax on produce, are impracticable for reasons given. The adoption of a tax on capital value on Australian lines is less so, but would involve changes of a more radical nature than is necessary.

(20) The essentials of a new scheme of temporary settlements are that it should be definite as regards both the basis and the pitch of assessment; that it should be as simple and cheap as possible; that it should so far as possible ease or steady the burden on the smallest cultivator; and finally that it should, in common with the rest of the system of taxation, involve some element of progression in the case of the larger owners.

(21) The Committee recommend that these essentials should be secured by providing that for the future the basis of the settlement should be annual value, i.e., the gross produce less cost of production, including the value of the labour actually expended by the farmer and his family on the holding, and the return for enterprise. The functions of the settlement officer should be limited to the ascertainment of this value on a uniform basis. A uniform rate fixed for a whole province should then be applied to these valuations as they were made on districts falling in for resettlement.

(22) In the case of controlled rents, where the rent is fixed by the settlement officer or is limited by law or by custom having the force of law, such rent should be taken to be the annual value.

(23) Where the practice of levying " nazaranas " exists, their annual equivalent spread over the term of the lease should be added to the rent for the purpose of determining the annual value.

(24) The rate of assessment should be standardised at a comparatively low figure not exceeding 25 per cent. of the annual value.

(25) The reduction in the share borne by the land revenue to the total taxation should be accompanied by an increase in the local rate, the maximum for the ordinary rates being fixed at about 25 per cent. of the sum taken as land revenue.

(26) It is not possible, in the case of a tax " in rem " to relieve the poorest cultivator by an exemption. The relief of his difficulties is to be found in a better system of rural economy generally.

(27) The obvious ways of introducing an element of progression in the case of the large holder are through an income tax on agricultural incomes, or through something in the nature of a succession duty, or both.

Part II.—Revenue from non-agricultural land.

(28) Where land outside the limits of towns or villages which is assessed to land revenue on the basis of its crop value is diverted from use for cultivation, it should be liable to re-assessment on the basis of its annual value for other purposes.

(29) House sites in villages should continue free of assessment, but all future grants should be made subject to the levy of ground-rent, if and when the village becomes a town.

(30) In the case of town lands that have been permitted to be occupied free of provincial taxation or at a nominal rent, it is impracticable at present to impose anything in the shape of a provincial tax.

(31) In the case of town lands that pay agricultural assessment, there is no reason why the assessment should not be based on annual value, provided due notice is given.

(32) In the case of lands still under Government control, the procedure laid down in the order relating to ground-rents is satisfactory.

(33) The practice of making over to municipalities a substantial fraction of the receipts from town lands should be generally adopted, but the management of the lands should be left in the hands of the revenue authorities.

(34) As regards the taxation of unearned increment—

(i) It is both impracticable and unfair to impose a tax on increments in land values that have already accrued.

(ii) It is not impracticable to tax future increments, especially in large towns which can afford to employ highly paid competent staffs, if an account is maintained of improvements effected after a fixed date with a view to deduction of their value on the occasion on which the duty is levied.

The Charge for Water. — (35) Wherever possible the charge for water should be separated from the charge on the land.

(36) The minimum charge, except in the case of protective works, should be the cost of supplying the water, that is to say, the cost of maintenance of the irrigation work *plus* interest on capital cost, and the normal charge should be a moderate share of the value of the water to the cultivator.

(37) The rates, which should be fixed with regard to prices, area irrigated, crop raised and other considerations, should be as few as possible, and they should be examined periodically with a view to increase or decrease.

(38) Where the demand is not constant and the ryots agree to pay for water, whether they require it or not, a reduced payment for a term of years may be accepted.

(39) Where a guarantee of supply is newly given, a reasonable share of the addition made to the capital or annual value of the land by such guarantee may be taken.

TAXES ON CONSUMPTION—CUSTOMS.

Import duties.—(40) Recent revisions of the tariff have had far-reaching effects.

(41) Some of the duties that are not protective in intention are protective in operation.

(42) Other duties are exercising a restrictive effect on trade.

(43) So far as conclusions can be drawn from the figures of incidence, they tend to indicate a certain amount of shifting of the burden from the richer classes to the general population.

(44) A higher rate of duty can safely be imposed on wine, beer and spirits.

(45) A reduction of the duty on the conventional necessities of life, such as sugar, and on the raw materials of industry and means of production is desirable.

(46) The Committee endorse the opinion of Dr. Gregory that the customs tariff should be the object of periodical survey, and recommend that an expert enquiry be undertaken forthwith.

(47) When the Sea Customs Act comes up for revision, section 30 should be amended so as to make the charge on invoice price *plus* cost of freight the normal procedure, and the charge on a price which includes the wholesaler's profit the exceptional one.

(48) Conditions in India offer many facilities for smuggling operations. The Committee recommend a skilled preventive officer should be deputed to compare and co-ordinate the arrangements in the different provinces, not only at the main ports, but also at minor ports, along the coast and on the land frontiers.

(49) An ideal arrangement would be the institution of a customs zollverein, but this is not practical politics at present.

Export duties. (50) The Committee accept in general the recommendations of the Indian Fiscal Commission, that export duties should be levied on articles of which India has a complete or a partial monopoly, that the rates in any case should be low, and that an export duty should not be utilised for the purpose of protecting an industry.

(51) They do not recommend any increase in the rate of duty or any alteration in the rate of duty on rice.

(52) The duty on tea may continue for the present, but it should be removed or reduced if and when the conditions of the trade indicate that it is having a prejudicial effect.

(53) The majority of the Committee agree with the Fiscal Commission in considering that the duty on hides is wrong in principal and dangerous in its effects, and advise its early abolition. The duty on skins may, however, be retained, but the matter should be examined by the Tariff Board at a suitable opportunity.

(54) The imposition of an export duty on lac is recommended.

(55) As regards oil-seeds and manures a majority of the Committee recommend that an export duty should be levied, and that a part of the export duty should be applied towards educating the cultivator to make an increased use of artificial manures.

TAXES ON CONSUMPTION—EXCISES FOR PURPOSES OF REVENUE.

Salt.—(56) The duty on salt falls on a necessary of life, and to the extent that salt is essential for physical existence it is in the nature of a poll tax.

(57) The present rate of duty is appropriate and causes no serious hardship; changes in the rate should not be made except in cases of grave emergency.

(58) The system of monopoly supply in Northern India and at Kharaghora results in the issue of salt of a good quality at a reasonable price.

(59) The Committee do not recommend any radical change in the systems of supply in Bombay and Madras, but think it desirable that steps should be taken to secure more control over stocks and prices and to assimilate the arrangements in the two provinces, especially in the matter of guarding and accounts.

(60) The obstacles to the supply of Indian salt to Bengal should be removed, and India should be made self-supporting in the matter of salt supply, if this end can be secured by the grant of a strictly temporary advantage to

the local manufacturer by means of a rebate of duty or of a differential duty on imports. An enquiry should be made into this aspect of the question by the Tariff Board.

(61) The rules regulating the issue of duty-free salt for use in industries are satisfactory. The rules in force in Bombay regarding issues for use in agriculture should be made general.

(62) The present concession as regards duty-free issues for the purpose of fish-curing should be continued so long as it does not involve any cost to the Imperial Government in excess of the actual duty remitted. The concession should, however, be extended to all provinces.

Cotton Piecegoods.—(63) If for revenue purposes a general excise is considered necessary, an excise duty on locally-manufactured cotton goods, coupled with an adequate customs duty on imported goods, need not necessarily be condemned so long as the burden on the consumer is not too great.

(64) The Government of India are, however, pledged to remove the present tax as soon as financial considerations permit. The Committee, therefore, class it among the taxes to be abolished.

Petroleum.—(65) There is no urgent case for the reduction of the duty on petrol. Should remission of taxation become possible, the Committee would give preference to the tax on kerosene, which falls on all classes of the population.

Matches.—(66) The statistics available to the Committee do not indicate that the time for the introduction of an excise duty on matches has yet arrived; but the matter will require examination by an expert body sooner or later.

Aerated waters.—(67) An excise duty on aerated waters, to be levied by means of a tax on cylinders of carbonic acid gas issued for this purpose, is a comparatively unobjectionable way of raising revenue.

Patent Medicines.—(68) An excise duty on patent medicines, accompanied by the application of a similar duty to imported patent medicines, is a suitable form of taxation.

Tobacco.—(69) Tobacco is universally recognised as a suitable object for taxation.

(70) Of the plans suggested, a Government monopoly in India would be too vast an undertaking to be considered.

(71) An acreage duty presents considerable administrative difficulties, and would probably excite resentment, and it is consequently not recommended.

(72) A local excise on all production would be impracticable, but the increases in the tariff make one desirable in the case of cigarettes and pipe tobacco made in factories.

(73) The experience of Indian States and Foreign territories in India disprove the idea that very little revenue is to be derived from a system of licensing.

(74) The Committee recommend an excise duty on locally-made cigarettes and pipe tobacco, accompanied by an indirect excise through a system of licensing in the case of country tobacco.

Taxes on Consumption—Restrictive Excises.—(75) In the case of country spirit, a system of supply through a managed monopoly should be extended wherever possible, and the rate of duty should be raised in Bihar and Orissa and Assam. Where it is proposed to depart from the auction system of disposal of licenses, the sliding scale system is recommended as satisfactory, if supported by a sufficiently large and efficient preventive staff.

(76) In the case of foreign liquors, a definite increase in the tariff rate is recommended in lieu of vend fees being imposed in the shape of additions

to the tariff rate. The tariff rate should also be levied on " foreign " liquors made in India, and arrangements should be made to credit all the duty on foreign liquor, whether country-made or imported, to the Imperial head.

(77) In the case of country fermented liquors, the tree-tax system should be extended wherever possible, but only under rigid and systematic control; and experiments should be expedited in the direction of bringing the brewing of country beers under control.

(78) In the case of hemp drugs, a system of contract supply or managed monopoly should be introduced where it does not exist, and enquiries should be made as to the proportion of the intoxicating principle in the " bhang " consumed, and as to the practicability of making up the " ganja " in a more uniform and consistent form.

(79) In the case of opium, the cultivation should be restricted, the stock should be reduced, the duty made uniform, the auction system abandoned, and experiments made in making up the drug into pills of a fixed size.

(80) The necessity for employing a special force to deal with inter-provincial smuggling is emphasised.

(81) Action already taken in the direction of prohibition has involved a very large loss of revenue and increase in crime.

(82) The consistent pursuit of a policy of real prohibition would involve the exploitation of every alternative source of possible revenue.

TAXES ON INCOMES.

Part I.—General.—(83) In the assessment of incomes the loss sustained in any one year should be allowed to be set off against the profits in the next subsequent year, subject to the condition that any assessee who claims to have made a loss must prove the fact by producing his accounts as soon as possible after the close of the year in which the loss is made.

(84) The effect of section 42 (1) of the Income Tax Act is to impose a much wider charge on the non-resident than is desirable. The law and practice should be brought into conformity with those adopted in England.

(85) The law in respect of refunds to non-residents should also be similar to that prevailing in England at present.

(86) The high limit of exemption and the almost universal practice of marriage make allowances for dependents unnecessary.

(87) A differentiation between earned and unearned income is not recommended in the present circumstances of India, but the case would be different if at any time incomes derived from agriculture were made liable to the tax.

(88) The rates in the case of incomes between £1,000 and £10,000 are very low in comparison with other countries. A moderate increase in the rates applicable to incomes above Rs.10,000 would be equitable.

The following scale is recommended:—

Rs.	Pies.
10,000 to 15,000	9
15,000 to 20,000	12
20,000 to 25,000	15
Above 25,000	18

The limit for super tax should at the same time be reduced to Rs.30,000 and a new rate of super-tax of six pies on the first Rs.20,000 or part thereof in excess of that sum introduced. In the case of the joint Hindu family the limit of exemption might be reduced to Rs.60,000, the anna rate being applied to the first Rs.40,000 of excess.

(89) The super-tax on companies should be converted into a corporation profits tax, the exemption of the first Rs.50,000 should be removed, and holding companies should not be assessed to this tax on profits which represent dividends of subsidiary companies.

(90) The necessary steps should be taken to secure an appeal to the Privy Council on points of law in respect of which conflicting decisions have been given.

(91) While secrecy in respect of income-tax matters is desirable, exceptions might be made (*a*) by permitting income-tax officers to draw up lists of persons who are liable to local taxes which are based on income, and (*b*) by publishing in the annual reports the names of persons penalised for income-tax offences.

(92) The most suitable method of preventing evasion by the formation of private companies and the withholding of dividends is to give the income-tax authorities power to treat such companies as if they were firms.

(93) In order to prevent evasion through the formation of bogus firms, (1) the incomes of married couples living together should be taxed at the rates applicable to their aggregate incomes; (2) the income-tax officer should be given power in particular cases to require the partners in an unregistered firm to furnish particulars of the partnership, and to compute the liability of the partners on the same basis as if the partnership had been registered; (3) particulars of the registration of any firm should be recorded by the income-tax officers and should be open to inspection; and (4) it is desirable to provide for the imposition of a heavy penalty in cases where loss of duty has arisen through failure to distribute the profits in accordance with the terms of a partnership.

Part II.—Income-tax on agricultural incomes.—(94) There is no historical or theoretical justification for the continued exemption from the income-tax of incomes derived from agriculture. There are, however, administrative and political objections to the removal of the exemption at the present time.

(95) There is ample justification for the proposal that incomes from agriculture should be taken into account for the purpose of determining the rate at which the tax on the other income of the same person should be assessed, if it should prove administratively feasible and practically worth while.

(96) The planter or other manufacturer who derives his income partly from cultivation and partly from manufacturing the produce so derived is fortunate in securing the benefit of the exemption.

(97) The money-lender who is a landlord only in name, ought, in equity, to pay the tax, but it does not seem administratively practicable to impose it.

Taxes on Transactions.—(98) The existing entertainment taxes are appropriate, and may be levied elsewhere. The power to levy the tax and the administration of it should be retained in the hands of the Local Governments, a share of the proceeds being made over to the local bodies concerned.

(99) Betting is recognised in many countries as a suitable object for taxation, and the form of the taxes levied in India is not objectionable.

(100) Municipal bodies should be given discretionary power to levy taxes on advertisements.

(101) A tax on railway tickets of the higher classes, which has been advocated by some witnesses, is not recommended.

Duties under the Stamp Act.—(102) The Indian Stamp Law fulfils its purpose satisfactorily and no drastic changes are recommended.

(103) The duty on documents of indebtedness such as bonds and mortgage deeds should be reduced as soon as circumstances permit.

(104) The distinction drawn between documents by which possession is given and that by which it is not should be removed.

(105) The rate charged on reconveyances should be reduced to two annas per Rs.100 of the mortgage debt, and the existing maximum of Rs.10 should be removed.

(106) In the case of deeds of cancellation, the duty should be that payable on the instrument sought to be cancelled, subject to a maximum of Rs.5.

(107) The duty on deeds of transfer should have regard to the value of the rights actually transferred.

(108) The duty on deeds of adoption should be reduced to Rs.5 where the property involved is of a value not exceeding Rs.2,000. A reduction may also be made in the case of deeds of authority to adopt.

(109) The duty on a settlement should be enhanced to the equivalent of the duty on a deed of gift.

(110) When a deed of release operates to convey property, it should be charged at the rate appropriate to a conveyance.

(111) In the case of deeds of partition land should be valued for purposes of duty at its actual value and not at a multiple of the assessment.

(112) The present fixed duties on instruments of partnership might be abolished and a duty at 4 annas per Rs.100 substituted.

(113) In the case of companies an *ad valorem* stamp duty on the nominal share capital at the rate of 8 annas per Rs. 100 might be levied and the duty on the articles of association and memorandum of association might be reduced to Rs.10.

(114) It is recommended that the distinction for purposes of duty between documents that are attested and those that are not should be done away with.

(115) Also that it should not be optional to the parties to fix values for purposes of duty other than the true values.

Stock and produce transactions.—(116) The issue of a contract note should be compulsory, both where a broker acts in that capacity and where he sells stock on his own account.

(117) It is hoped that it may be possible, with the aid of the stock exchange authorities, to put a stop to the loss of revenue arising from the use of blank transfers.

(118) In the absence of such action, the duty on contract notes should be raised to 4 annas for every Rs.10,000 subject to a maximum of Rs.40.

(119) In the case of the produce exchanges the taxation of futures is not only practically impossible, but on other grounds it would be undesirable to recognise these gambling transactions and to attempt to secure a revenue from them. It may be possible hereafter to secure a revenue from contract notes on the lines indicated in the case of the Stock Exchanges.

Penalties.—(120) For the existing maximum penalty on unstamped or insufficiently stamped documents there should be substituted a penalty of twice the deficient duty *plus* a sum of Rs.5.

(121) The limitation of the period within which a document can be voluntarily produced for rectification of the stamp duty should be removed.

(122) The disability of inadmissibility in evidence should be limited to the case of bills of exchange and promissory notes.

(123) From the point of view of the administration of the stamp law uniform legislation and unified rates of stamp duty are desirable.

Fees. — (124) Fees for the registration of vehicles should not be more than sufficient to cover the expenses of examining and registering the vehicles and testing the drivers.

(125) The fees for possession of firearms might be increased in the case of weapons licensed for purposes of sport and display, and in that of numerous weapons possessed by the same person.

(126) A cautious experiment might be made in selected local areas in the imposition of a fee for the registration of marriages, provided it is made clear that the purpose of the registration is merely to afford superior probative value of the fact of marriage.

(127) The fees charged for the registration of companies might be reduced, if a stamp duty on the nominal share capital is levied as recommended by the Committee.

(128) Recent increases in the fees for the registration of documents do not represent an increase in the element of taxation. It is permissible to increase these fees up to the point where they correspond to the probable value of the benefit derived.

(129) The fees for mutation of names in the revenue registers might with advantage be made more uniform. *Ad valorem* fees would not be appropriate in this case.

Court-fees.—(130) The pitching of the scale of the court-fees so as to produce a revenue just sufficient to cover all the costs of the administration of civil justice is an ideal to be aimed at, but financial considerations may justify the State in charging something more, provided that the fees charged do not cause substantial hardship to any class.

(131) A record should be maintained on uniform lines in each province to determine what is the amount of fees actually levied in the course of litigation, what is the actual cost of the courts and how the one compares with the other.

(132) The copyist and process services should just pay for themselves.

(133) The system under which the fees are fixed on a graduated and regressive scale with reference to the value of the subject matter litigated is suitable, but effect might be given to the principle of measuring court-fees by the cost of the service rendered to the extent of taking the fee in two instalments, the first being payable at the institution of the suit and the second on or immediately after the settlement of issues.

(134) The Court Fees Act and the schedules thereto need thorough revision by an expert committee.

(135) Section 7 should be recast and a schedule prepared similar to that in the Indian Limitation Act of suits and appeals which commonly arise in civil courts with a method of valuation prescribed for each.

(136) Provision should be made for recovery of deficient fees in decided suits.

(137) A series of instances is given of cases in which the fees are inadequate.

(138) In the matter of court-fees uniformity is desirable, not only as regards general principles, procedure and methods of realisation, but also as regards rates.

(139) In particular it is desirable that steps should be taken to render the fees on the Original Sides of the Chartered High Courts so far as possible uniform with one another, and not less than those in courts in the mofussil.

(140) The fees payable on applications to revenue and other officers should be examined and abolished except possibly in the case of those on applications which involve enquiries of a judicial nature.

(141) Fees paid in cash to officers of Government should also be subjected to scrutiny.

(142) An audit of receipts is recommended in the case both of stamp duties and of court-fees.

Probate Duties.—(143) A succession duty is impracticable in India, but a duty on the lines of the English Estate Duty, which may initially take the form of a transfer or mutation duty on death, is more practicable.

(144) This involves representation of the deceased, which is desirable on other grounds.

(145) The existing law provides for it in certain cases, but is limited to particular communities.

(146) The taxation that it involves is very inequitable in its incidence.

(147) The Committee recommend its modification and extension to all communities, and discuss the means of effecting this.

(148) They do not find the law of the joint Hindu family an insuperable obstacle.

(149) The legislation dealing with the question should be undertaken by the Central Legislature.

Local Taxation.—(150) A comparison with conditions in other countries indicates that the difficulties in local administration in India, and especially the unwillingness of the people to submit to taxation, is mainly due to the large jurisdictions of the local bodies.

Taxes on trade.—(151) The octroi and the terminal tax in the form in which they are levied in India offend against all the canons of taxation.

(152) It is a function inherent in the Imperial Government to protect inter-provincial traffic from obstruction by taxes imposed by subordinate authorities, and it is regretted that the Government of India have to so large an extent abandoned their control of a matter that is of paramount importance to the trade of the country.

(153) Four possible means of replacing these taxes are discussed, viz. :—

(*a*) a rate on land and houses,
(*b*) a profession tax,
(*c*) market dues and taxation of private markets,
(*d*) a tax on retail sales.

(154) If it is not possible to adopt any of these alternatives, general principles to govern the levy of octroi and terminal taxes in future are indicated.

Tolls.—(155) Where a terminal tax is levied and the rates are raised beyond a certain level, terminal tolls on the roads are necessary to prevent evasion.

(156) General municipal tolls are justified when they form part of a scheme for the taxation of vehicles.

(157) Ferry charges are apt to develop into a pure tax on transit.

(158) Tolls on district roads are undoubtedly an impediment to through traffic. It is desirable to abolish them, at least in the case of motor vehicles, and to replace them by a provincial tax on the vehicle. In case this is done, the import duty should be reduced.

Taxes on property.—(159) The rates of property tax in India are very low, and there is considerable scope for increase in the assessment of town property.

(160) Another outstanding feature of the property tax in India is the inefficiency of the machinery of collection and assessment. The remedy for this state of affairs lies in provincial control.

(161) In view of the recommendation for the standardisation of the land revenue at a comparatively low rate, it is suggested that the maximum limit on the rate of cess on agricultural land be altogether removed, or at least be raised to $6\frac{1}{4}$ per cent. of the annual value.

(162) In the case of works executed by local authorities for the benefit primarily of specific areas, it is recommended that the local authority concerned should be in a position to recover the whole or a portion of the cost in the shape of an annual cess imposed for a limited period on land in those areas.

Taxes on persons.—(163) The assessment of the tax on circumstances and property has given rise to widespread complaints of unfair incidence, while the levy of the profession tax has been found to be administratively difficult. It is recommended that the assessment and collection of these taxes in rural areas should be entrusted to the general administrative staff of the districts.

(164) The tax on pilgrims is theoretically objectionable, but the rate is so low that it involves little hardship or addition to the expenditure which the pilgrimage normally involves.

(165) A light terminal tax on passengers may be appropriate in the case of a large city, but the tax of Rs.2 levied in Rangoon on passengers departing by sea is difficult to justify.

General.—(166) The general rate of local taxation in India is very low. This is partly due to the fact that the taxation of land, which should be the main basis of local taxation, has in a great measure in India been reserved for the State, and partly to the fact that the jurisdictions of local bodies are so large as to remove them from effective touch with the tax payers.

(167) It is recommended that, from the point of view of taxation at any rate, the development of the future should be in the direction of restoring the influence of the village panchayat, and limiting the functions of the bodies at present operating.

Local taxation of railways.—(168) Where it is proposed to include a railway colony within the area of a municipality, it is recommended that provision should be made for the railway authorities to be heard by the Local Government before any order is issued approving the inclusion.

(169) In the case of an existing colony within a municipality where the railway company derives some benefit from a municipal service or services, for which a specific tax is imposed, but not the full benefit which the levy of the tax implies, it is suggested that a reasonable basis of agreement between the company and the municipality would be the remission of a proportion of the tax paid by the colony, to be fixed on principles indicated.

(170) The assessment of railway property to the general municipal rates should be based on the principle that the service rendered to a railway can best be gauged by the extent and value of property used for the reception and despatch of goods and passengers. The method of assessment of such property followed in Bombay is recommended for general adoption.

(171) The exemption from the cess on land enjoyed by the State and guaranteed railways under the Bengal Cess Act should be extended throughout India, if there are any railways that do not enjoy it.

(172) There is no sufficient justification for the exemption of railways from the chowkidari tax.

Local taxation of mines.—(173) There is no necessary anomaly in the fact that the general taxes on mines are based on annual value and net profits, and the special taxes sometimes on raisings and sometimes on despatches.

(174) But an arrangement under which the same rate of taxation is applied to the annual net profits of a mining enterprise as to the annual value of agricultural land must make for differential taxation.

The Distribution of the Burden.— (175) An estimate of the proportion borne by average taxation to average income has a very limited value.

(176) It was not possible within the time of the Committee's appointment to secure new data on these or any other lines, nor is the existing material sufficient to enable an estimate to be framed of the economic condition of the various classes of the people.

(177) The Committee are therefore thrown back on such general considerations relating to typical classes of the population as a prudent Finance Minister would examine in framing or revising a scheme of taxation.

(*a*) *The urban labourer.*—The burden on this class has increased during recent years. It will, to some extent, be reduced by the abolition of the cotton excise duty. It is not desirable to reduce the salt duty or the excises on intoxicants, and a decrease in the customs duties and in the municipal taxes on consumption is indicated as the more satisfactory course.

(*b*) *The landless agricultural labourer.*—The burden on this class is very low, and it would be benefited by the abolition of the excise duty on cotton goods and by a reduction in customs duty on goods consumed by all classes.

(*c*) *The small landholder.*—The difficulties of this class are not primarily the result of taxation. In order to afford it relief it has been suggested that the land revenue should be standardised at a flat rate not exceeding 25 per cent. of the annual value.

(*d*) *The peasant proprietor.*—The burden of this class is comparatively light. The only recommendations made that are likely to affect it are the extension of the probate duties and the raising of the rate of local cesses.

(*e*) *The large landholder.*—Except in individual cases, the burden of this class is comparatively light. The possible means of increasing its contribution are by the imposition of an income-tax on agricultural incomes or the extension of the probate duty.

(*f*) *The village trader.*—This class escapes certain taxes intended to affect it, and should be brought within the scope of further taxation by a more general extension and a more efficient administration of taxes of the nature of the circumstances and property tax and the profession tax.

(*g*) *The small trader in towns.*—The contribution of this class is more than that of the previous one owing to municipal taxation, which may well be raised.

(*h*) *The larger trader.*—This class escapes with a comparatively light burden, but would be affected by the extension of the probate duties, the steepening of the graduation of the income-tax and the increase in local taxation.

(*i*) *The big merchants.*—Though this class bears a large portion of the tax revenue, its burden is not as heavy as that of similar classes in other countries. It would be increased by the extension of the probate duties, by the increase in the super-tax and by the abolition of the exemption limit in the case of companies.

(*j*) *The professional classes—lower grades.*—This class has suffered under recent developments, but its tax burden is comparatively small.

(*k*) *The higher professional classes.*—The position of this class is similar to that of the largest merchants.

The Order of Precedence.—(178) A change almost amounting to a revolution has already taken place in the proportions borne by the different taxes to the total revenue. The tendencies that have brought this about have been generally in the right directions.

(179) As regards the tendencies that are now in operation, (*a*) a policy of real prohibition would involve a loss of revenue exceeding the return from any new proposals which can be put forward, (*b*) the pledge given in relation to

the cotton excise involves provision for its replacement, (*c*) it is impossible to forecast the further effects of the policy of discriminating protection or of high customs duties for revenue purposes, (*d*) an increase in the import duties on imported liquors is desirable on special grounds.

(180) The Committee do not include local taxation in their recommendations regarding the order in which taxes may be remitted or imposed.

(181) Subject to these considerations, the following is the order of priority suggested in the case of the remission of taxation :—

(*a*) Reduction in the customs duties on conventional necessities, especially on sugar, with a view to affording relief to the poorest classes.

(*b*) The removal of the export duty on hides.

(*c*) In the case of non-judicial stamps, a revision of the schedule in the direction of reduction, especially in relation to documents such as bonds and agreements.

(*d*) Standardisation of the land revenue, which will ultimately result in a further reduction of the proportion borne by the land revenue to the total taxation.

(*e*) Reduction of court-fees, especially by the collection of the court-fees on suits in two instalments and by the cessation of the practice of making a profit out of the fees for copying and for service of processes.

(182) The following order of priority has been suggested in the matter of substitutes for taxes removed or reduced, including the cotton excise and the loss under restrictive excises :—

(*a*) Proper collection of duties on stock exchange transactions.

(*b*) Conversion of the super-tax on companies into a corporation profits tax and the abolition of the exemption limit

(*c*) Regrading of the income-tax and introduction of a super-tax on incomes from Rs.30,000 to Rs.50,000.

(*d*) Enhancement in the rate of duty on country-made " foreign " liquors up to the tariff rate and an increase in the excise duty on country spirits in Bihar and Orissa and Assam.

(*e*) Increase in the license fees for firearms.

(*f*) Taxation of patent medicines.

(*g*) A general extension of probate duties.

(*h*) Extension of the tax on entertainments and betting.

(*i*) Imposition of taxation on tobacco through means of an excise on local manufactures or an increase in the import duty on unmanufactured tobacco, coupled with a system of licensing of sales of country tobacco.

(*j*) Export duties on lac, oil-seeds, bones and other manures.

(*k*) An excise duty on aerated waters.

(*l*) The imposition of income tax on agricultural incomes is put in the last place for reasons which are explained.

THE DIVISION OF THE PROCEEDS.

Part I.—Imperial and Provincial.—(183) There is no ideal system of division of sources of taxation between Imperial and State Governments.

(184) A system of separation of sources is the best if a scheme can be discovered which gives to each Government a revenue adequate to its needs and at the same time effects a fair division between them.

(185) Where this is not possible, a system of division of the proceeds of taxes is better than a system of subsidies.

(186) Certain taxes are essentially Imperial, namely, import duties; revenue excises; and revenue derived from the export of opium.

The revenue from non-judicial stamps is much more appropriate to the Imperial than to the Provincial head. It is desirable that the duty on country-

made " foreign " liquors should be levied at the tariff rate and be credited to the same head as the import duty. The increasing restrictions that are being imposed upon excise opium suggest that it is desirable that this item of revenue also should be credited to the Imperial Government, which undertakes responsibility for the restrictions.

(187) Certain taxes are essentially Provincial, namely, land revenue and receipts from irrigation; taxes on transactions other than those levied under the Stamp Act; fees, including court-fees; and revenue from the licensing of sale of tobacco.

(188) The following taxes afford possible balancing factors; income-tax, export duties, restrictive excises other than on opium, and probate duties.

(189) The absence of an income-tax on agricultural incomes and the large proportion of the total revenue that is derived from the land make a division of the income-tax unavoidable if the division is to be fair to industrial and agricultural provinces alike.

(190) If equilibrium can be secured by this means alone, it is undesirable to use the other balancing factors; in other words, the export duties should be entirely Imperial and the restrictive excises, other than that on opium, and the probate duty entirely Provincial.

The Committee's proposals therefore reduce themselves to the transfer of non-judicial stamps and the excise duty on country-made " foreign " liquors, and possibly the revenue now derived from excise opium, to the Imperial Government, and the establishment of equilibrium by the transfer to the provinces of a share of the income-tax.

(191) The most satisfactory means of determining such a share is to make over the proceeds of a basic rate on personal incomes, graduated proportionately to the general rate, to which should be added a small proportion of the receipts from the corporation profits tax.

(192) It is not within the Committee's functions to suggest a detailed revision of the settlement between the Government of India and the Provinces, and they therefore leave the application of the principles suggested by them to some other body.

(193) While Devolution Rule 15 appears to have failed of its object, it does not appear practicable to revise it except as part of the general revision.

Part II.—Provincial and Local.—(194) The Committee have recommended an increase in the resources of local bodies—

(*a*) by conversion of the " thathameda," the capitation tax and the " chowkidari " into sources of local revenue;

(*b*) by standardising the land revenue so as to give greater scope for local taxation of land, and by the imposition of special assessments;

(*c*) by transfer to local bodies of a share of the collections of Local Governments from ground-rents in towns and by increasing the rates on non-agricultural land;

(*d*) by giving municipalities the power to tax advertisements;

(*e*) by extending the imposition of taxes on entertainments and betting and giving local bodies a substantial share of the proceeds;

(*f*) by extending and improving the administration of the taxes on circumstances and property and the profession tax;

(*g*) by reducing the import duty on motor cars and enabling Local Governments to levy a Provincial tax for distribution in lieu of tolls;

(*h*) by grant of power to levy a fee for the registration of marriages in selected areas.

(195) When all these allotments are made, the resources of local authorities will still require to be supplemented by subsidies.

(196) The manner in which these should be distributed is an administrative question, but the following principles are recommended :—

(*a*) Subsidies should ordinarily be restricted to services which are of national importance.

(*b*) They should be granted on a system which will enable the Provincial Government effectively to enforce efficiency.

(*c*) They should be granted on some uniform and easily comprehensible plan, so worked out in advance that the local body can arrange its programme of expenditure in good time and provide for a due adjustment between that, its expected receipts and its scheme of taxation.

THE MACHINERY OF TAXATION.

(197) The effect of past developments has been—

(*a*) that the Collector has been relieved in a great measure of the function of assessment, while remaining responsible for collection and remittance;

(*b*) that the increase of specialisation and the separation of Imperial from Provincial functions have led to multiplication of departments; and

(*c*) that, in the case of local bodies, there has been a transfer to elected representatives of functions which are not rightly theirs.

(198) The Committee's recommendations are as follows :—

(1) *Imperial taxes.*—The pivot of the tax administration in the case of these taxes should be the Central Board of Revenue, directing separate but co-ordinated staffs to deal with the income-tax, customs and salt.

(2) *Provincial taxes.*—In the case of Provincial taxes, there is no similar central head, but the Collector should be the district head of the staffs responsible for land revenue, excise, registration, taxes on transactions and fees.

(3) *Local bodies.*—The pivot of the administration in the case of local bodies should be the executive officer, who might be a lent officer of the district staff, and who would be in touch, in the administration of the taxes, with certain Provincial and Imperial officers.

The Collector should act as a liaison officer between the Imperial and Provincial and between the Provincial and Local departments, and he or one of his assistants should also be the appellate authority in all cases of appeals against assessments to local taxes, except where provision is made for appeal to a court.

APPENDIX II.

(APPENDIX TO CHAPTER III.)

ACT No. III of 1927.

[PASSED BY THE INDIAN LEGISLATURE.]

(Received the assent of the Governor General on the 8th March, 1927.)

An Act to provide for the continuance of the protection of the steel industry in British India.

Whereas it is expedient, in pursuance of the policy of discriminating protection of industries in British India with due regard to the well-being of the community, that increased import duties should continue to be levied on certain iron and steel articles for the purpose of fostering and developing the steel industry in British India, and that the rates of the duties leviable in the application of that policy should be fixed for a period of seven years from the 1st day of April, 1927; It is hereby enacted as follows:—

1. *Short title and commencement.*—(*1*) This Act may be called the Steel Industry (Protection) Act, 1927.

(*2*) It shall come into force on the 1st day of April, 1927.

2. *Amendment of section* 3, *Act VIII. of* 1894.—(*1*) For sub-section (*4*) of section 3 of the Indian Tariff Act, 1894, the following sub-sections shall be substituted, namely:—

"(*4*) If the Governor General in Council is satisfied, after such inquiry as he thinks necessary, that articles of British manufacture chargeable with duty under Part VII of the Second Schedule are being imported into British India at such a price as is likely to render ineffective the protection intended to be afforded by such duty to similar articles manufactured in India, he may, by notification in the Gazette of India, increase such duty to such extent as he thinks necessary.

(*5*) If the Governor General in Council is satisfied, after such inquiry as he thinks necessary, that articles not of British manufacture chargeable under Part VII of the Second Schedule with a higher duty than similar articles of British manufacture are being imported into British India from any place outside India at such a price as is likely to render ineffective or excessive the protection intended to be afforded by such duty to similar articles manufactured in India, he may, by notification in the Gazette of India, increase or reduce such duty to such extent as he thinks necessary either generally or in respect of such articles when imported from or manufactured in any country or countries specified in the notification:

Provided that the duty leviable on any such article shall in no case be less than the duty leviable on a like article of British manufacture.

(*6*) The Governor General in Council may, by notification in the Gazette of India, prescribe the conditions subject to which articles shall be deemed to be of British manufacture for the purposes of this section and of the Second Schedule."

(*2*) In the Second Schedule to the same Act there shall be made the amendments specified in the Schedule to this Act.

(*3*) The amendments made by this section other than those made in Parts I and II of the Second Schedule to the Indian Tariff Act, 1894, shall have effect only up to the 31st day of March, 1934.

3. *Statutory inquiry.*—The Governor General in Council shall, not later than the 31st day of March, 1934, cause to be made, by such persons as he may appoint in this behalf, an inquiry as to the extent, if any, to which it is

necessary to continue the protection of the steel industry in British India and as to the manner in which any protection found necessary should be conferred.

4. *Repeal of Act XIV of* 1924.—The Steel Industry (Protection) Act, 1924, is hereby repealed.

THE SCHEDULE.

AMENDMENTS TO BE MADE IN SCHEDULE II OF THE INDIAN TARIFF ACT, 1894.

(*See section 2.*)

1. In Part I after item No. 20 the following item shall be inserted, namely :—

" 20A	Zinc, unwrought, including cakes, ingots, tiles (other than boiler tiles), hard or soft slabs and plates, dust, dross and ashes; and broken zinc."	

2. In Part II—

(*a*) in the heading, after the words " liable to " the word " non-protective " shall be inserted; and

(*b*) after item No. 39 the following heading and item shall be inserted, namely :—

	" METALS.		
39A	TIN, block	Ton	Rs.250 "

3. For items Nos. 60, 61 and 62 and the heading thereto the following shall be substituted, namely :—

	" METALS—IRON AND STEEL.	
60	Iron alloys. Iron angle, channel and tee not otherwise specified (*see* No. 143). Iron bar and rod not otherwise specified (*see* No. 144). Iron pig. Iron rice bowls.	
61	Iron or Steel anchors and cables. Iron or Steel bolts and nuts, including hook-bolts and nuts for roofing. Iron or Steel hoops and strips. Iron or Steel nails, rivets and washers, all sorts, not otherwise specified (*see* No. 145). Iron or Steel pipes and tubes; also fittings therefor, that is to say, bends, boots, elbows, tees, sockets, flanges, plugs, valves, cocks and the like, excluding pipes, tubes and fittings therefor otherwise specified (*see* No. 146). Iron or Steel railway track material not otherwise specified (*see* Nos. 63 and 150), including bearing plates, cast iron sleepers and fastenings therefor, and lever-boxes. Iron or Steel tramway track material, not otherwise specified (*see* No. 150), including rails, fish-plates, tie-bars, switches, crossings and the like materials of shapes and sizes specially adapted for tramway tracks. Iron or Steel sheets (including cuttings, discs and circles) under $\frac{1}{8}$ inch thick, whether fabricated or not, if coated with metals other than tin or zinc.	

61—*continued.*

Iron or Steel plates and sheets (including cuttings, discs and circles) not under $\frac{1}{8}$ inch thick, not otherwise specified (*see* Nos. 146, 147, 153 and 154), whether fabricated or not.

Iron or Steel barbed or stranded fencing-wire and wire-rope.

Iron or Steel (other than bar or rod) specially designed for the reinforcement of concrete.

Iron or Steel expanded metal.

62 Steel, angle and tee if galvanized, tinned or lead-coated.

" Steel (other than bars), alloy, crucible, shear, blister and tub.

Steel (other than bars) made for springs and cutting tools by any process.

Steel ingots, blooms and billets, and slabs of a thickness of $1\frac{1}{2}$ inches or more.

Steel bar and rod, the following kinds—

(*a*) shapes specially designed for the reinforcement of concrete, if the smallest dimension is under $\frac{1}{2}$ inch;

(*b*) all shapes and sizes, if—

(i) of alloy, crucible, shear, blister or tub steel, or

(ii) galvanized or coated with other metals, or

(iii) planished or polished, including bright steel shafting;

(*c*) other qualities, if of any of the following shapes and sizes—

(i) rounds under $\frac{1}{2}$ inch diameter.

(ii) squares under $\frac{1}{2}$ inch side.

(iii) flats, if under 1 inch wide and not over $\frac{1}{8}$ inch thick.

(iv) flats not under 8 inches wide and not over $\frac{1}{2}$ inch thick.

(v) ovals, if the dimension of the major axis is not less than twice that of the minor axis.

(vi) all other shapes, any size."

4. For item No. 63 and the heading thereto the following shall be substituted, namely:—

" RAILWAY PLANT AND ROLLING-STOCK.

63 Railway materials for permanent-way and rolling-stock, namely, sleepers, other than iron and steel, and fastenings therefor; bearing plates, fish bolts and nuts, chairs, interlocking apparatus, brake-gear, shunting skids, couplings and springs, signals, turn-tables, weighbridges, carriages, wagons, traversers, rail removers, scooters, trollies, trucks, and component parts thereof; switches, crossings and the like materials made of alloy steel; also cranes, water-cranes and water-tank when imported by or under the orders of a railway company:

Provided that for the purpose of this entry ' railway ' means a line of railway subject to the provisions of the Indian Railways Act, 1890, and includes a railway constructed in a State in India and also such tramways as the Governor General in Council may, by notification in the Gazette of India, specifically include therein:

Provided also that nothing shall be deemed to be dutiable hereunder which is dutiable under No. 51 or No. 51A."

THE SCHEDULE—*continued.*

5. In item No. 87, before the word " tramcars " the words " CONVEYANCES not specified in No. 142, namely," shall be inserted.

6. After Part VI the following Part shall be inserted, namely :—

" PART VII.

Articles which are liable to protective duty at special rates.

No.	Name of Article.	Rate of duty.
	CONVEYANCES.	
142	COAL TUBS, tipping wagons and the like conveyances designed for use on light rail track, if adapted to be worked by manual or animal labour and if made mainly of iron or steel; and component parts thereof made of iron or steel—	
	(*a*) if of British manufacture . .	Rs. 21 per ton or 17 per cent. *ad valorem*, whichever is higher.
	(*b*) if not of British manufacture .	Rs. 21 per ton or 17 per cent. *ad valorem*, whichever is higher, *plus* Rs. 15 per ton.
	METALS—IRON AND STEEL.	
143	IRON angle, channel and tee—	
	(*a*) fabricated, all qualities—	
	(i) of British manufacture .	Rs. 21 per ton or 17 per cent. *ad valorem*, whichever is higher.
	(ii) not of British manufacture	Rs. 21 per ton or 17 per cent. *ad valorem*, whichever is higher, *plus* Rs. 15 per ton.
	(*b*) not fabricated, kinds other than galvanized, tinned or lead-coated and other than Crown or superior qualities—	
	(i) of British manufacture .	Rs. 19 per ton.
	(ii) not of British manufacture	Rs. 30 per ton.
144	IRON, COMMON BAR not galvanized, tinned or lead-coated if not of any shape and dimensions specified in clause (*a*) or clause (*c*) of No. 62—	

THE SCHEDULE—*continued.*

No.	Name of Article.	Rate of duty.
144—*contd.*	(i) of British manufacture .	Rs. 26 per ton.
,,	(ii) not of British manufacture	Rs. 37 per ton.
145	IRON OR STEEL NAILS, wire or French .	Rs. 3 per cwt.
146	IRON OR STEEL PIPES and tubes and fittings therefor, if riveted or otherwise built up of plates or sheets—	
	(*a*) galvanized	Rs. 33 per ton or 17 per cent. *ad valorem*, whichever is higher.
	(*b*) not galvanized—	
	(i) not under $\frac{1}{8}$ inch thick—	
	of British manufacture .	Rs. 21 per ton or 17 per cent. *ad valorem*, whichever is higher.
	not of British manufacture	Rs. 21 per ton or 17 per cent. *ad valorem*, whichever is higher, *plus* Rs. 15 per ton.
	(ii) under $\frac{1}{8}$ inch thick—	
	of British manufacture .	Rs. 39 per ton or 17 per cent. *ad valorem*, whichever is higher.
	not of British manufacture	Rs. 39 per ton or 17 per cent. *ad valorem*, whichever is higher. *plus* Rs. 26 per ton.
147	IRON OR STEEL plates or sheets (including cuttings, discs and circles) not under $\frac{1}{8}$ inch thick and not of cast iron—	
	(*a*) fabricated, all qualities—	
	(i) of British manufacture . .	Rs. 21 per ton or 17 per cent. *ad valorem*, whichever is higher.
	(ii) not of British manufacture	Rs. 21 per ton or 17 per cent. *ad valorem*, whichever is higher, *plus* Rs. 15 per ton.

THE SCHEDULE—*continued.*

No.	Name of Article.	Rate of duty.
147—*contd.*	(*b*) not fabricated, chequered and ship, tank, bridge and common qualities—	
	(i) of British manufacture .	Rs. 20 per ton.
	(ii) not of British manufacture	Rs. 36 per ton.
148	IRON OR STEEL sheets (including cuttings, discs and circles) under $\frac{1}{8}$ inch thick—	
	(*a*) fabricated—	
	(i) galvanized	Rs. 33 per ton or 17 per cent. *ad valorem*, whichever is higher.
	(ii) all other sorts not otherwise specified (*see* No. 61)—	
	of British manufacture .	Rs. 39 per ton or 17 per cent. *ad valorem*, whichever is higher.
	not of British manufacture	Rs. 39 per ton or 17 per cent. *ad valorem*, whichever is higher, *plus* Rs .26 per ton.
	(*b*) not fabricated—	
	(i) galvanized	Rs. 30 per ton.
	(ii) all other sorts not otherwise specified (*see* Nos. 61 and 154)—	
	of British manufacture .	Rs. 35 per ton.
	not of British manufacture	Rs. 59 per ton.
149	IRON OR STEEL WIRE, other than barbed or stranded fencing wire, wire-rope or wire-netting.	Rs. 60 per ton.
149A	IRON OR STEEL the original material (but not including machinery), *see* Nos. 51 and 51A of any ship or other vessel intended for inland or harbour navigation which has been assembled abroad, taken to pieces and shipped for re-assembly in India: Provided that articles dutiable under this item shall not be deemed to be dutiable under any other item.	Rs. 23 per ton or 10 per cent. *ad valorem*, whichever is higher.

THE SCHEDULE—*continued.*

No.	Name of Article.	Rate of duty.
150	IRON OR STEEL RAILWAY TRACK MATERIAL—	
	A. Rails (including tramway rails) the heads of which are not grooved—	
	(*a*) (i) 30 lbs. per yard and over .	Rs. 13 per ton.
	(ii) fish-plates therefor . . .	Rs. 6 per ton or 10 per cent. *ad valorem*, whichever is higher.
	(iii) spikes and tie-bars therefor—	
	of British manufacture .	Rs. 26 per ton.
	not of British manufacture	Rs. 37 per ton.
	(*b*) under 30 lbs. per yard, and fish-plates, spikes and tie-bars therefor—	
	if of British manufacture .	Rs. 26 per ton.
	if not of British manufacture	Rs. 37 per ton.
	B. Switches and crossings and the like materials not made of alloy steel, including switches and crossings and the like materials for tramway rails the heads of which are not grooved—	
	(i) for rails 30 lbs. per yard and over.	Rs. 14 per ton or 17 per cent. *ad valorem*, whichever is higher.
	(ii) for rails under 30 lbs. per yard—	
	of British manufacture .	Rs. 29 per ton or 17 per cent. *ad valorem*, whichever is higher.
	not of British manufacture	Rs. 29 per ton or 17 per cent. *ad valorem*, whichever is higher, *plus* Rs. 12 per ton.
	C. Sleepers, other than cast iron, and keys and distance pieces and the like for use with such sleepers.	Rs. 10 per ton or 10 per cent. *ad valorem*, whichever is higher.

THE SCHEDULE.—*continued.*

No.	Name of Article.	Rate of duty.
151	STEEL, angle and tee, not otherwise specified (*see* No. 62) and beam, channel, zed, trough and piling—	
	(*a*) fabricated—	
	(i) of British manufacture . .	Rs. 21 per ton or 17 per cent. *ad valorem*, whichever is higher.
	(ii) not of British manufacture	Rs. 21 per ton or 17 per cent. *ad valorem*, whichever is higher, *plus* Rs. 15 per ton
	(*b*) not fabricated—	
	(i) of British manufacture .	Rs. 19 per ton.
	(ii) not of British manufacture .	Rs. 30 per ton.
152	STEEL, bar and rod, not otherwise specified (*see* No. 62)—	
	(i) of British manufacture	Rs. 26 per ton.
	(ii) not of British manufacture . .	Rs. 37 per ton.
153	STEEL STRUCTURES, fabricated partially or wholly, not otherwise specified, if made mainly or wholly of steel bars, sections, plates or sheets, for the construction of buildings, bridges, tanks, wellcurbs, trestles, towers and similar structures or for parts thereof, but not including builders' hardware (*see* No. 90) or any of the articles specified in Nos. 51, 51A, 64 or 87—	
	(i) of British manufacture	Rs. 21 per ton or 17 per cent. *ad valorem*, whichever is higher.
	(ii) not of British manufacture . .	Rs. 21 per ton or 17 per cent. *ad valorem*, whichever is higher, *plus* Rs. 15 per ton.
154	STEEL, tinplates and tinned sheets, including tin taggers and cuttings of such plates, sheets or taggers.	Rs. 48 per ton."

APPENDIX III.

(APPENDICES TO CHAPTER VI.)

A.—STATEMENT SHOWING THE PRODUCTION, IMPORTS AND EXPORTS OF YARN DURING THE PERIOD 1899–1900 TO 1925–26.

Years.	Imports of Yarn.	Re-exports of Yarn.	Net imports of Yarn (2-3)	Indian Production.	Exports of Indian Yarn.	Net consumption of Indian mill production (5-6).	Total Indian consumption (4-7).	Yarn consumed in mills for production of woven goods assuming 100 lbs. of yarn 112 lbs. of cloth.	Balance of Yarn available for consumption in handloom industry (8-9.).	Population.	Consumption of Yarn per capita.
1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.
	lbs. (million)	lbs. (million)	lbs. (million)	lbs. (million)	lbs. (million)	lbs. (million)	lbs. (million)	lbs. (million)	lbs. (million)	(million)	lbs.
1899–1900	42·6	5·5	37·1	514	244	270	307	87	220	292	1·06
1900–01	34·8	4·7	30·1	353	122	231	261	88	173	294	·88
1901–02 ...	38·3	6·7	31·6	573	278	295	327	107	220	295	1·10
1902–03 ...	33·7	5·8	27·9	576	255	321	349	110	239	297	1·17
1903–04 ...	28·0	4·9	23·1	579	260	319	342	123	219	299	1·14
1904–05 ...	30·6	5·2	25·4	578	256	322	347	142	205	310	1·15
1905–06 ...	45·8	5·0	40·8	681	305	376	417	146	271	302	1·38
1906–07 ...	37·7	5·5	32·2	654	251	403	435	148	287	305	1·42
1907–08 ...	37·3	6·6	30·7	638	223	415	446	169	277	307	1·45
1908–09 ...	41·5	6·5	35·0	658	242	416	451	171	280	309	1·42
1909–10 ...	40·3	5·6	34·7	628	234	394	429	204	225	311	1·37
1910–11 ...	32·5	5·4	27·1	610	191	419	446	220	226	313	1·42
1911–12 ...	42·0	7·3	34·7	625	161	464	499	238	261	315	1·58
1912–13 ...	50·0	9·3	40·7	688	215	473	514	254	260	315	1·63
1913–14 ...	44·2	8·3	35·9	683	207	476	512	245	267	316	1·62
1914–15 ...	42·9	8·9	34·0	652	143	509	543	247	296	316	1·71
1915–16 ...	40·4	8·7	31·7	722	168	554	586	314	272	317	1·84
1916–17 ...	29·5	6·7	22·8	681	178	503	526	337	189	317	1·65
1917–18 ...	19·4	6·1	13·3	661	130	531	544	340	204	317	1·71
1918–19 ...	38·1	6·1	32·0	615	73	542	574	312	262	318	1·81
1919–20 ...	15·2	7·2	7·9	636	161	475	483	343	140	318	1·51
1920–21 ...	47·3	3·6	43·7	660	89	571	615	328	287	319	1·92
1921–22 ...	57·1	3·6	53·5	694	88	606	660	361	299	319	2·06
1922–23 ...	59·3	6·3	53·0	706	64	642	695	362	333	319	2·17
1923–24 ...	44·6	5·1	39·5	617	46	571	611	359	252	320	1·90
1924–25 ...	55·9	5·4	50·5	719	46	673	724	410	314	320	2·26
1925–26 ...	51·6	1·0*	50·6	686	32*	654	705	415	290	320	2·20

*Figures for exports and re-exports by sea only are available for the year 1925–26.

B.—Statement showing the Progress of the Cotton Mill Industry in India.

Year ending 30th June.	Number of mills working.	Number of spindles.	Number of looms.	Number of mills not working.	Number of spindles.	Number of looms.	Number of mills in course of erection.	Number of spindles.
1	2	3	4	5	6	7	8	9
1883–84... ...	68	1,838,911	16,162	1	15,264	Nil.	13	147,492
1884–85... ...	83	2,099,346	16,437	Nil.	Nil.	Nil.	7	46,300
1885–86... ...	86	2,227,464	15,060	5	171,736	2,395	4	55,728
1886–87... ...	94	2,272,982	17,576	Nil.	Nil.	Nil.	9	148,308
1887–88... ...	95	2,462,497	19,145	3	26,354	Nil.	16	150,920
1888–89... ...	99	2,654,592	20,652	4	62,824	909	20	251,626
1889–90... ...	111	2,971,510	23,408	Nil.	Nil.	Nil.	25	431,642
1890–91... ...	121	3,187,302	23,927	1	6,868	Nil.	12	237,524
1891–92... ...	125	3,320,984	24,719	3	46,148	300	11	166,420
1892–93... ...	125	3,322,071	27,427	6	146,598	260	10	129,648
1893–94... ...	133	3,592,238	30,618	2	18,762	211	7	87,736
1894–95... ...	137	3,722,116	34,661	1	12,042	211	10	107,339
1895–96... ...	144	3,895,602	36,764	Nil.	Nil.	Nil.	26	147,204
1896–97... ...	149	4,003,457	37,165	2	23,986	419	39	242,816
1897–98... ...	153	4,011,383	36,323	4	53,673	517	32	315,504
1898–99... ...	167	4,549,791	38,155	4	55,300	464	25	328,052
1899–1900 ...	170	4,591,568	35,259	13	327,395	4,868	10	22,709
1900–01... ...	176	4,747,380	39,359	11	259,586	1,821	6	30,200
1901–02... ...	178	4,841,313	40,511	6	98,660	1,829	8	92,492
1902–03... ...	181	4,946,811	43,839	4	50,240	75	7	46,244
1903–04... ...	183	5,003,737	45,037	7	114,384	300	1	18,000

B.—STATEMENT SHOWING THE PROGRESS OF THE COTTON MILL INDUSTRY IN INDIA—*continued.*

Year ending, 30th June.	Number of mills working.	Number of spindles.	Number of looms.	Number of mills not working.	Number of spindles.	Number of looms.	Number of mills in course of erection.	Number of spindles.
1	2	3	4	5	6	7	8	9
1904–05... ...	191	5,122,474	49,506	3	41,012	633	3	50,096
1905–06... ...	194	5,226,957	52,068	3	20,446	88	20	208,961
1906–07... ...	199	5,270,175	57,546	5	33,944	1,516	20	266,316
1907–08... ...	218	5,662,332	66,230	7	50,192	860	16	182,400
1908–09... ...	224	5,936,395	74,495	9	35,844	748	26	197,868
1909–10... ...	222	5,988,317	81,295	21	207,354	1,430	20	167,352
1910–11... ...	217	5,943,634	82,965	26	413,826	2,387	18	36,216
1911–12... ...	233	6,094,642	85,801	19	369,287	3,150	16	35,896
1912–13... ...	236	6,320,028	92,487	23	276,834	1,649	13	29,460
1913–14* ...	240	6,484,691	101,022	21	294,204	3,157	10	104,500
1914–15* ...	240	6,446,266	106,067	23	402,478	1,942	9	73,000
1915–16* ...	237	6,347,422	107,603	25	492,455	2,665	4	50,000
1916–17* ...	238	6,466,381	112,144	22	272,316	2,477	3	Nil.
1917–18* ...	249	6,562,637	115,818	9	91,234	636	4	Nil.
1918–19* ...	250	6,642,048	117,385	6	47,632	836	2	Nil.
1919–20* ...	242	6,715,128	118,297	8	47,948	715	3	5,712
1920–21* ...	245	6,845,824	123,544	5	24,980	239	7	25,000
1921–22* ...	249	7,277,571	133,544	5	53,648	1,076	44	245,000
1922–23* ...	280	7,560,405	140,455	12	171,681	2,373	41	195,852
1923–24* ...	274	7,851,104	146,453	15	270,751	2,941	47	191,418
1924–25* ...	275	8,093,801	148,612	19	264,520	4,337	43	152,312

*Ending 31st August.

B.—Statement showing the Progress of the Cotton Mill Industry in India—*continued.*

Year ending 30th June.	Number of looms.	Total number of mills.	Number of spindles.	Number of looms.	Average number of hands employed daily.	Approximate quantity of cotton consumed in bales of 392 lbs.	Year ending 30th June.
	10	11	12	13	14	15	16
1883–84... ...	100	82	2,001,667	16,262	60,287	531,365	1883–84
1884–85... ...	100	90	2,145,646	16,537	67,186	596,749	1884–85
1885–86... ...	Nil.	95	2,454,928	17,455	74,383	643,204	1885–86
1886–87... ...	960	103	2,421,290	18,536	76,942	726,276	1886–87
1887–88... ...	351	114	2,639,771	19,496	82,379	786,982	1887–88
1888–89... ...	Nil.	123	2,969,042	21,561	91,598	888,654	1888–89
1889–90... ...	1,528	136	3,403,152	24,936	102,721	1,008,462	1889–90
1890–91... ...	1,404	134	3,431,694	25,331	111,018	1,178,906	1890–91
1891–92... ...	2,145	139	3,533,552	27,164	116,161	1,165,938	1891–92
1892–93... ...	477	141	3,598,317	28,164	121,500	1,171,008	1892–93
1893–94... ...	325	142	3,698,736	31,154	130,461	1,222,508	1893–94
1894–95... ...	466	148	3,841,497	35,338	138,669	1,341,714	1894–95
1895–96... ...	731	170	4,042,806	37,495	145,432	1,409,318	1895–96
1896–97... ...	Nil.	190	4,270,259	37,584	144,335	1,300,936	1896–97
1897–98... ...	1,173	189	4,380,560	38,013	148,964	1,481,328	1897–98
1898–99... ...	1,414	205	4,933,143	40,033	162,108	1,675,190	1898–99
1899–1900 ...	442	193	4,941,672	40,569	161,189	1,453,352	1899–1900
1900–01... ...	100	193	5,037,166	41,280	172,883	1,351,740	1900–01
1901–02... ...	300	192	5,032,465	42,640	181,031	1,765,038	1901–02
1902–03... ...	178	192	5,043,295	44,092	181,399	1,739,340	1902–03
1903–04... ...	Nil.	191	5,136,121	45,337	184,779	1,744,766	1903–04

B.—STATEMENT SHOWING THE PROGRESS OF THE COTTON MILL INDUSTRY IN INDIA—*continued.*

Year ending 30th June.	Number of looms.	Total number of mills.	Number of spindles.	Number of looms.	Average number of hands employed daily.	Approximate quantity of cotton consumed in bales of 392 lbs.	Year ending 30th June.
	10	11	12	13	14	15	16
1904–05... ...	Nil.	197	5,213,582	50,139	195,277	1,879,244	1904–05
1905–06... ...	2,212	117	5,456,364	53,368	208,616	2,023,516	1905–06
1906–07... ...	3,760	224	5,570,435	62,822	205,696	1,980,170	1906–07
1907–08... ...	2,798	241	5,894,924	69,889	221,195	1,991,500	1907–08
1908–09... ...	3,165	259	6,170,107	78,408	236,924	2,109,000	1908–09
1909–10... ...	2,300	263	6,363,023	85,025	233,624	1,935,010	1909–10
1910–11... ...	1,800	261	6,393,676	87,152	230,649	1,905,866	1910–11
1911–12... ...	1,839	268	6,499,825	90,790	243,637	2,050,102	1911–12
1912–13... ...	800	272	6,626,322	94,936	253,786	2,096,016	1912–13
1913–14* ...	2,400	271	6,883,395	106,579	260,276	2,143,126	1913–14*
1914–15* ...	2,400	272	6,921,744	110,409	265,346	2,102,632	1914–15*
1915–16* ...	1,800	266	6,889,877	112,068	274,361	2,197,718	1915–16*
1916–17* ...	Nil.	263	6,738,697	114,618	276,771	2,198,164	1916–17*
1917–18* ...	Nil.	262	6,653,871	116,454	282,227	2,085,678	1917–18*
1918–19* ...	Nil.	258	6,689,680	118,221	293,277	2,044,230	1918–19*
1919–20* ...	470	253	6,768,788	119,482	311,078	1,952,318	1919–20*
1920–21* ...	Nil.	257	6,895,804	123,783	332,179	2,120,230	1620–21*
1921–22* ...	2,800	298	7,576,219	137,420	343,723	2,203,540	1921–22*
1922–23* ...	1,966	333	7,927,938	142,462	347,390	2,151,698	1922–23*
1923–24* ...	2,091	336	8,313,273	151,485	356,887	1,917,748	1923–24*
1924–25* ...	1,071	337	8,510 633	154,020	367,877	2,226,310	1924–25*

C.—Value of Trade with Principal Countries, distinguishing Principal Articles.

Table No. 1.

United Kingdom.

Articles.	Pre-war average.	1924–25.	1925–26.	1926–27.
		Rs. 000's	omitted.	
Imports therefrom—				
Animals, living	5,02	19,76	18,20	13,38
Apparel	59,29	70,09	83,16	86,26
Arms, ammunition, etc. ...	30,60	62,29	55,58	53,69
Artificial silk yarn ...	—	26,05	23,80	14,07
Asbestos	—	11,12	14,05	19,39
Belting for machinery ...	36, 26	79,74	62,82	62,17
Bobbins	—	36,99	33,40	30,71
Books and printed matter	41,05	47,41	48,68	47,45
Boots and shoes	51,33	20,18	26,61	29,22
Building materials ...	59,89	79,57	76,75	64,71
Carriages and carts ...	19,11	12,89	9,03	9,07
Chemicals	69,55	1,30,44	1,24,01	1,41,55
China clay	—	16,03	13,53	16,56
Coal and coke	41,33	41,30	30,87	6,81
Cordage and rope	4,39	4,31	2,87	6,92
Cotton—				
Raw	58,67	23,33	2,78	44,64
Twist and yarn	3,35,18	4,54,98	3,13,80	3,08,08
Piecegoods—				
Grey	20,73,55	24,06,16	17,08,36	15,24,09
White	10,87,38	19,24,71	15,08,86	16,67,04
Coloured	11,29,72	16,44,95	11,90,90	12,57,96
Other manufactures ...	1,40,25	1,94,12	1,76,53	1,53,45
Cutlery	10,53	10,58	9,19	9,03
Cycles and parts	29,40	65,13	87,07	91,70
Drugs and medicines ...	54,03	84,85	84,60	86,26
Dyeing and tanning substances	6,90	8,77	12,18	11,30
Earthenware and porcelain	30,50	29,49	29,05	29,95
Flax manufactures... ...	28,83	29,42	31,69	30,00
Furniture	10,84	6,77	9,07	14,45
Glass and glassware ...	22,26	29,11	26,23	25,47
Haberdashery and millinery	61,21	29,45	29,48	27,48
Hardware	1,88,61	2,00,34	1,97,76	1,84,45
Instruments' apparatus, etc.	1,04,88	1,98,51	2,22,18	2,50,55
Ivory	11,33	15,16	9,24	9,84
Jewellery, etc.	14,51	8,44	12,39	27,48
Jute manufactures ...	10,09	9,38	12,84	9,85
Leather, including hides, tanned, etc.	38,59	44,47	31,80	43,17
Liquors—				
Ale, beer and porter ...	45,64	51,33	51,09	54,48
Spirit	69,47	1,30,76	1,34,62	1,35,64
Wines	13,62	12,55	11,48	11,94

TABLE No. 1—*continued.*

Articles.	Pre-war average.	1924–25.	1925–26.	1926–27.
		(Rs. 000's omitted).		
Machinery and millwork ...	4,97,69	12,39,54	11,87,23	10,65,86
Metals—				
Aluminium	5,38	18,46	22,84	23,08
Brass	6,13	1,56,06	1,27,96	77,33
Copper	1,67,45	32,17	39,67	28,27
Iron	28,88	13,47	13,70	8,36
Iron and steel	6,96,13	11,25,39	11,60,99	9,93,24
Lead	13,99	9,70	8,88	7,70
Steel	42,02	52,71	49,70	37,29
Zinc	14,85	16,14	13,45	17,70
Others	27,43	20,61	15,79	24,22
Motor cars and motor cycles	74,50	74,26	1,23,58	1,36,09
Oils, mineral	22,31	24,64	21,38	19,56
Oils, vegetable, animal, etc.	17,76	12,31	14,43	15,80
Packing engine and boiler ...	4,98	3,75	3,18	3,63
Paints and painters' materials...	56,00	96,03	99,89	1,04,52
Paper and pasteboard ...	73,44	1,30,22	1,16,63	1,09,30
Piecegoods of cotton and artificial silk	—	83,08	58,10	1,17,19
Pitch and tar	8,72	3,53	4,03	2,19
Polishes	9,48	19,26	19,89	18,85
Precious stones	14	15,86	16,91	12,48
Printing materials	14,70	22,69	20,50	20,79
Provisions	1,34,15	1,54,18	1,71,50	2,03,23
Railway plant, etc. ...	5,54,48	5,41,08	4,24,53	2,00,84
Rubber manufactures, including tyres, etc. ...	16,45	78,57	96,01	88,71
Salt	23,44	27,79	19,55	14,08
Ships, parts of	18,00	10,83	8,70	2,86
Silk manufactures, including yarn	19,07	13,49	9,79	8,57
Soap	56,52	1,24,81	1,35,67	1,37,10
Stationery	41,44	51,26	51,30	45,13
Sugar	25,37	20,42	35,51	41,74
Tallow and stearine ...	10,43	9,95	9,54	8,65
Tea-chests	41,32	75,38	67,52	48,86
Tobacco	54,83	1,39,93	1,76,23	2,11,97
Toilet requisites	10,35	20,60	21,43	23,57
Toys and requisites for games	16,75	12,38	12,97	14,11
Umbrellas	24,71	18,78	18,35	14,75
Woollen manufactures, including yarn	1,85,24	2,08,13	2,11,14	1,94,84
Other articles	1,49,67	3,96,77	3,97,00	3,50,93
Total	91,58,01	1,33,45,16	1,15,32,02	1,10,63,75

TABLE NO. 2.

ITALY.

Articles.	Pre-war average.	1924–25.	1925–26.	1926–27.
Imports therefrom—		(Rs. 000's omitted).		
Apparel	6,98	14,35	12,78	16,40
Art, works of	45	89	1,45,	1,08
Building materials ...	2,57	11,52	13,02	12,83
Buttons	—	5,44	6,91	12,12
Chemicals	4,72	10,95	6,32	14,34
Dyeing and tanning substances	1,49	2,48	2,20	4,60
Fruits and vegetables ...	8,48	18,88	15,45	37,23
Glassware	4,26	8,21	8,37	6,37
Instruments	1,70	6,34	8,66	8,13
Liquors	78	2,86	2,46	3,08
Machinery	1,44	4,10	8,22	6,38
Metals—				
Aluminium	9	2,41	3,31	6,80
Brass	1,09	1,22	46	1,16
German silver	—	1,19	4,46	1,90
Others	67	3,83	6,22	8,13
Motor cars, etc.	66	10,16	29,94	40,10
Paper and pasteboard ...	79	3,50	3,71	3,56
Rubber manufactures ...	13	3,77	18,11	5,15
Stone and marble	2,48	2,56	3,38	3,61
Sugar	23	3,13	3,10	7,88
Textiles—				
Artificial silk yarn ...	—	13,50	33,71	64,15
Cotton-twist and yarn ...	4,98	4,05	6,96	4,36
Cotton manufactures ...	45,22	81,26	66,78	81,80
Haberdashery and millinery	4,32	7,12	6,67	5,97
Silk manufactures ...	19,83	39,13	11,85	24,72
Piecegoods of cotton and artificial silk	—	43,83	37,42	80,82
Wool manufactures ...	4,07	28,15	50,69	69,06
Other articles	27,41	48,12	53,06	84,58
Total	1,44,84	3,83,95	4,25,67	6,16,11

TABLE No. 3.

BELGIUM.

Articles.	Pre-war average.	1924–25.	1925–26.	1926–27.
		(Rs. 000's omitted).		
Imports therefrom—				
Artificial silk	—	8,47	6,25	9,01
Arms, etc.	26	2,46	3,96	4,23
Building materials ...	4,04	3,60	5,59	7,37
Cotton manufactures, including yarn	42,12	24,74	17,02	30,10
Dyeing and tanning substances	10,82	16,44	5,57	9,41
Earthenware and porcelain	3,45	1,88	1,48	1,64
Glass and glassware ...	16,92	27,11	22,76	26,69
Hardware	5,58	3,17	3,66	4,12
Liquors	1,50	3,81	1,76	1,59
Machinery and millwork ...	1,76	7,44	29,64	24,61
Manures	75	8,65	9,25	8,15
Metals—				
Brass	37	3,31	3,67	2,27
Copper	3,54	6,30	10,09	21,91
Iron	15,95	6,99	3,23	7,31
Iron or steel	45,46	1,79,67	1,77,41	1,93,24
Steel	63,54	1,85,69	1,01,60	1,12,00
Motor cars, etc.	4,15	3,53	1,38	1,10
Paints and painters' materials	2,08	2,65	2,84	5,38
Paper and pasteboard ...	5,00	6,00	9,12	11,20
Precious stones	1	38,60	47,19	37,13
Provisions	1,41	41,97	26,95	10,58
Railway plant, etc. ...	4,28	17,71	27,64	38,65
Sugar	29	22,37	15,92	30,74
Woollen manufactures ...	2,11	12,58	23,47	15,09
Other articles	40,61	40,92	55,61	66,56
Total	2,76,00	6,76,06	6,13,06	6,80,08

ROYAL ASIATIC SOCIETY. OF THE BOMBAY BRANCH OF THE

TABLE No. 4.

GERMANY.

Articles.	Pre-war average.	1924–25.	1925–26.	1926–27.
		(Rs. 000's omitted).		
Imports therefrom—				
Apparel	14,87	18,59	16,07	20,61
Bobbins	—	2,30	2,50	2,48
Building materials ...	6,72	3,80	2,59	6,93
Buttons	—	6,36	5,06	6,49
Carriages	2,81	2,13	1,08	2,50
Chemicals	10,62	39,38	41,87	52,48
Cutlery	7,95	26,93	22,25	30,29
Cycles	1,75	10,75	12,75	12,96
Drugs and medicines ...	6,19	17,39	20,63	33,35
Dyeing substances ...	87,40	1,92,29	82,36	1,06,05
Glassware	23,69	38,96	39,89	51,85
Hardware	57,24	1,33,64	1,42,68	1,58,32
Instruments	13,57	42,93	46,92	52,62
Liquors	19,41	36,03	35,02	39,10
Machinery	30,27	50,93	85,99	94,59
Metals—				
Aluminium	12,16	29,33	21,75	18,02
Brass	1,56	1,29,52	78,89	1,27,24
Copper	93,41	94,98	97,03	86,64
Iron	2,86	12	54	9
Iron or steel	86,97	1,31,13	98,17	91,31
Steel	65,19	33,51	17,91	33,14
Zinc	3,23	1,68	2,93	13,70
Motor cars, etc.	5,64	2,24	2,84	4,05
Oils	19,57	40,88	49,98	31,40
Paints and painters' materials	5,58	8,75	8,48	10,36
Paper and pasteboard ...	21,82	64,25	34,16	49,77
Paper making materials ...	1,61	3,88	7,09	6,72
Printing materials	1,02	5,56	5,19	5,62
Railway plant	12,19	7,50	18,11	27,81
Rubber manufactures ...	3,82	8,00	16,34	15,21
Salt	9,46	9,33	9,07	15,13
Stationery	5,04	17,88	24,35	24,93
Sugar	3,84	61,29	3,63	1,10,88
Textiles—				
Artificial silk	—	13,02	14,07	33,68
Cotton manufactures ...	83,71	42,30	30,93	47,29
Haberdashery	22,10	32,66	21,48	36,21
Silk manufactures ...	16,81	10,06	5,74	8,49
Wool manufactures ...	90,62	55,61	62,87	67,29
Toys	11,10	19,70	15,13	17,68
Umbrellas	7,66	12,07	17,65	21,45
Other articles	66,10	89,20	1,08,80	1,19,03
Total	9,35,56	15,46,86	13,30,79	16,90,72

TABLE No. 5.

JAPAN.

Articles.	Pre-war average.	1924–25.	1925–26.	1926–27.
		(Rs. 000's omitted).		
Imports therefrom—				
Ale, beer and porter ...	3	2,43	1,74	—
Apparel	9,17	10,15	11,11	13,15
Bobbins	—	3,09	1,68	1,03
Brass, bronze, etc. ...	7	11,56	36,91	33,36
Brushes and brooms ...	48	40	70	78
Buttons of all sorts ...	—	9,13	9,68	11,62
Camphor	11,48	18,88	16,32	18,19
Carriages	11	8,81	3,45	5,34
Cement	1	1,93	2,30	3,88
Chemicals	93	2,48	2,72	3,35
Coal and coke	7,02	94	2,73	16
Copper	27,99	4	5	6
Cotton, raw	9	12	56	56
,, hosiery	65,23	85,55	1,11,38	1,17,66
,, piece goods ...	6,10	5,74,63	6,88,15	6,57,55
,, yarn	6,16	4,59,37	4,24,80	3,20,21
,, other manufactures	2,12	16,92	24,06	20,74
Cutlery	—	77	31	10
Drugs and medicines (other than camphor)	1,72	6,73	8,59	7,86
Earthenware and porcelain	4,23	28,71	34,84	33,12
Furniture and cabinetware	71	57	1,23	1,56
Glass and glassware—				
Bangles	5	25,61	23,67	20,64
Beads and false pearls ...	7,61	12,97	11,06	9,69
Bottles and phials ...	1,00	10,30	10,46	11,80
Funnels, globes, etc. ...	58	2,25	2,62	2,27
Tableware	1,41	4,79	6,07	5,05
Others	3,35	9,82	13,61	17,96
Haberdashery and millinery	10,88	16,12	23,60	14,71
Hardware	3,59	27,08	37,09	28,95
Instruments	85	3,24	5,37	3,91
Iron or steel	—	8	15	8
Leather	38	20	24	34
Machinery and millwork ...	63	2,72	2,95	3,02
Matches	28,40	40,77	24,63	10,58
Paints and painters' materials	—	3,74	3,90	3,82
Paper and pasteboard ...	55	3,04	4,60	4,79
Provisions and oilman's stores	1,57	2,84	2,44	3,18
Rubber manufactures ...	—	77	1,14	1,20
Silk, raw	1,15	6,09	1,25	1,28
Silk manufactures, including yarn, etc. ...	1,31,45	1,76,87	1,29,45	1,37,85
Spices, ginger	3,40	3,28	2,41	59
Starch and farina	7	32	26	3

TABLE NO. 5—*continued.*

Articles.	Pre-war average.	1924–25.	1925–26.	1926–27.
		(Rs. 000"s omitted).		
Stationery (excluding paper)	2,17	4,83	5,25	4,43
Tea-chests	87	45	26	30
Toilet requisites	1,31	3,44	3,59	3,06
Toys and requisites for games	3,16	13,78	11,77	11,18
Umbrella fittings	4,91	13,70	13,11	14,38
Wood—timber	32	6,69	13,36	18,94
,, —manufactures ...	71	74	2,87	4,04
Woollen manufactures (including yarn)	8	12,02	20,57	11,01
Other articles	10,25	60,31	57,64	47,88
Total	3,64,35	17,12,07	18,19,00	16,47,24

TABLE No. 6.

UNITED STATES.

Articles.	Pre-war average.	1924–25.	1925–26.	1926–27.
Imports therefrom—		(Rs. 000's omitted).		
Aluminium	4,26	31,02	25,33	35,13
Apparel	33	9,44	10,95	11,30
Arms	80	4,99	5,05	4,02
Belting for machinery ...	1,11	6,69	9,08	11,42
Boots and shoes	54	2,91	5,08	14,41
Building materials ...	88	10,39	10,91	13,65
Carriages	72	1,75	56	1,10
Chemicals	22	4,41	5,82	6,90
Clocks and watches ...	3,82	7,19	7,23	6,57
Copper	—	16,23	18,98	2,47
Cotton, raw	27,72	8,00	1,56	2,11,19
,, piecegoods	26,44	31,20	41,92	45,01
Drugs and medicines ...	4,18	14,34	13,30	17,68
Dyeing substances ...	—	10,21	16,77	19,38
Furniture	1,44	1,80	2,18	2,76
Glassware	1,17	3,46	3,86	4,77
Hardware	24,72	78,09	80,83	71,21
Instruments	5,86	34,68	44,81	59,24
Iron and steel	48,56	69,35	81,24	96,56
Leather	—	3,93	5,75	10,11
Machinery	24,56	1,40,12	1,40,98	1,39,27
Motor cars, etc.	8,49	1,14,42	1,64,45	1,77,87
Oils, mineral	2,19,66	5,60,18	5,56,62	5,40,57
Paper and pasteboard ...	1,21	9,50	13,23	14,76
Provisions	3,80	28,11	33,76	44,09
Railway plant	54	17,46	14,70	20,82
Rubber	16	17,65	37,53	40,62
Ships	24	8	3	29
Spirit	5,34	12,33	13,19	14,11
Stationery	2,05	4,94	4,31	3,60
Sugar	18	2,14	5,00	35,94
Tobacco	5,90	52,47	32,56	39,87
Toilet requisites	2,22	12,27	14,44	15,11
Wood and timber	6,56	4,81	3,76	6,60
Other articles	15,35	1,07,80	4,82,80	91,27
Total	4,49,03	14,07,03	15,07,35	18,29,67

APPENDIX IV.

THE IMPORT TRADE OF INDIA DURING THE FIRST HALF (1ST APRIL TO 30TH SEPTEMBER) OF THE FISCAL YEAR, 1927-1928.

India's visible balance of trade in merchandise and treasure during the six months April to September, 1925,1926, and 1927, is shown in the table given below. Both the exports and imports in 1927 are higher than in the corresponding period of the previous year. During the first quarter of the fiscal year, exports of Indian merchandise on private account were nearly four crores lower than in the previous year, but during the second quarter of the current year, exports reached a total of 79 crores, or eight crores more than in the second quarter of 1926.

BALANCE OF TRADE.

	Six months April to September.		
	1925.	1926.	1927.
	Rs. lakhs.	Rs. lakhs.	Rs. lakhs.
Exports of Indian Merchandise (Private)	+180,09	+146,57	+150,62
Re-exports of Foreign Merchandise (Private)	+ 5,84	+ 3,60	+ 4,52
Imports of Foreign Merchandise (Private)	−107,97(*a*)	−115,10 (*a*)	−121,57 (*a*)
Balance of Trade in Merchandise (Private)	+ 77,96	+ 35,07	+ 33,57
Gold (Private)*	− 16,00	− 11,04	− 8,07
Silver (Private)*	− 8,19	− 7,81	− 7,56
Currency Notes (Private) ...	+ 3	− 12	− 20
Balance of transactions in Treasure (Private)*	− 24,16	− 18,97	− 15,83
Total Visible Balance of Trade ...	+ 53,80	+ 16,10	+ 17,74
Council Bills, purchases of Sterling and other Government Remittances to the United Kingdom(*b*)	− 27,24	—	− 13,89
Sterling Transfers on London sold in India	—	—	—
Transfers of Government Securities	− 1,10	− 23	− 23
Interest Drafts on India in respect of Government of India securities	− 19	− 17	− 16
Balance of Remittances of Funds	− 28,53	− 40	− 14,28

(*a*) Exclusive of the value of Railway materials imported direct by State Railways working under Company management which were not paid for in the ordinary way and not therefore taken into account in arriving at the balance of trade.

(*b*) This head includes, in addition to Council Bills, (1) Sterling purchases in India and (2) payments in India to Local Bodies, etc., against proceeds of sterling loans floated by them in London and taken over by the Secretary of State.

*These exclude transactions which do not enter into the balance of trade.

The following table shows the value of the merchandise imported from the principal countries :—

Country.	1st April to 30th September, 1926.	1927.
	Rs. lakhs.	Rs. lakhs.
United Kingdom	56,90	59,93
Rest of British Empire	8,25	8,33
United States of America	8,06	12,36
Japan	8,17	8,39
Germany	8,84	7,51
Java	7,74	6,42
All countries	115,81	122,88

The percentage share obtained by the United Kingdom has fallen slightly from 49·1 per cent. in the first half-year of 1926, to 48·8 per cent. in 1927. United States has increased her percentage from 7 per cent. to 10 per cent. The proportion obtained by Japan has fallen slightly, while there has been a sharp fall in the share of the trade obtained by Germany and Java. Imports from Italy increased slightly from 2·5 per cent. to 2·6 per cent.

Among the imports in which the United Kingdom has secured an increased share of the trade may be mentioned artificial silk yarn, wrought copper, steel bars (other than cast steel), sheets and plates (not galvanized or tinned), tubes, pipes and fittings (wrought), and railway plant and rolling stock.

Among large increases of trade by foreign countries are imports of fents from the United States, of woollen piecegoods from France, and of carpets and rugs from Italy. There has been a striking increase in the total imports of artificial silk yarn, and of raw cotton from the United States.

PRINCIPAL IMPORTS INTO BRITISH INDIA DURING THE SIX MONTHS, 1ST APRIL TO 30TH SEPTEMBER, 1926 AND 1927.

	1926.		1927.	
	Quantity.	Value.	Quantity.	Value.
		Rs. lakhs.		Rs. lakhs.
Raw cotton (thousand tons)	17·2	2,39·4	55·0	5,41·4
United Kingdom ,,	1·4	15·3	0·5	4·6
Kenya Colony ,,	9·4	1,63·0	9·8	1,48·6
U.S.A. ... ,,	5·1	49·0	43·2	3,71·5
Cotton twist and yarn (million lbs.)	25·8	3,78·7	31·4	3,94·2
United Kingdom ,,	11·3	1,81·0	12·9	1,87·3
Japan ... ,,	13·4	1,80·1	11·0	1,34·4
Cotton piecegoods grey unbleached (million yds.)	421·0	11,23·8	474·9	11,47·5
United Kingdom ,,	348·2	9,14·4	372·8	8,86·7
Japan ... ,,	71·2	2,03·9	97·2	2,48·0
Cotton piecegoods, white bleached (million yds.)	282·2	8,95·0	300·5	8,17·1
United Kingdom ,,	273·0	8,48·6	288·4	7,67·9
Switzerland ,,	3·7	21·4	4·2	20·2
Cotton piecegoods, coloured, printed or dyed (million yds.)	214·7	8,72·8	246·1	8,36·7
United Kingdom ,,	159·5	6,60·7	174·2	6,07·6
Japan ... ,,	35·4	97·1	47·6	1,22·6
Holland ... ,,	6·8	38·4	5·7	28·1
Italy ... ,,	6·6	32·7	12·7	41·4

PRINCIPAL IMPORTS INTO BRITISH INDIA DURING THE SIX MONTHS, 1ST APRIL TO 30TH SEPTEMBER, 1926 AND 1927—*continued.*

	1926.		1927.	
	Quantity.	Value.	Quantity.	Value
		Rs. lakhs.		Rs. lakhs.
Hosiery (cotton)	—	64·0	—	67·9
United Kingdom	—	1·5	—	1·0
Japan	—	50·7	—	56·0
Fents of all descriptions (million yds.)	10·5	33·9	17·6	46·2
United Kingdom ,,	4·5	17·6	5·9	18·7
U.S.A. ... ,,	5·9	15·4	11·5	26·9
Cotton thread, sewing (thousand lbs.)	1,053·3	40·4	1,239·1	39·1
United Kingdom ,,	873·6	36·0	1,017·3	34·3
Haberdashery and millinery	—	63·9	—	56·7
United Kingdom	—	14·9	—	14·1
Germany	—	22·1	—	13·4
Switzerland	—	10·7	—	9·7
Woollen piecegoods (million yds.)	9·1	1,61·1	9·7	1,70·5
United Kingdom ,,	3·2	79·9	3·4	80·2
Italy ... ,,	2·0	20·8	1·5	18·8
France ... ,,	1·7	27·2	3·0	40·5
Woollen shawls (thousands)	512·9	18·7	520·4	17·2
United Kingdom ,,	100·3	4·2	137·0	4·9
Germany ... ,,	130·1	7·6	187·6	8·2
Wool, raw (thousand lbs.)	3,475·8	19·3	3,824·7	26·6
United Kingdom ,,	865·3	8·6	863·7	11·8
Persia ... ,,	1,905·8	7·7	1,962·4	7·9
Carpets and rugs ,,	880·5	18·1	2,317·2	36·7
United Kingdom ,,	161·4	5·2	153·0	4·6
Italy ... ,,	645·1	10·6	1,997·0	28·5
Artificial silk yarn ,,	1,990·7	38·7	4,094·1	78·6
United Kingdom ,,	253·6	7·3	1,236·2	25·3
Italy ... ,,	1,157·3	19·5	2,019·3	37·5
Netherlands ,,	210·7	4·3	235·9	4·8
Piecegoods of cotton and artificial silk (million yds.)	19·0	1,42·3	19·3	1,47·3
United Kingdom ,,	7·9	57·3	5·7	40·1
Italy ... ,,	6·0	34·6	5·3	30·8
Switzerland ,,	3·0	28·5	4·0	34·7
Silk, raw (thousand lbs.)	950·7	61·8	1,027·5	63·4
Silk yarn, noils and warps (thousand lbs.)	594·6	35·9	655·7	26·7
Goods of silk mixed with other materials (thousand yds.)	1,156·0	17·1	926·2	14·5
Silk piecegoods ,,	10,356·1	1,33·2	10,153·6	1,23·0
Machinery and millwork ...	—	6,64·8	—	7,67·4
United Kingdom	—	5,24·9	—	6,00·9
U.S.A.	—	66·8	—	77·1
Aluminium, wrought and unwrought (thousand cwts.)	51·8	51·7	71·8	58·0

PRINCIPAL IMPORTS INTO BRITISH INDIA DURING THE SIX MONTHS, 1ST APRIL TO 30TH SEPTEMBER, 1926 AND 1927—*continued.*

	1926.		1927.	
	Quantity.	Value.	Quantity.	Value.
		Rs. lakhs.		Rs. lakhs.
Yellow metal for sheathing				
,, (thousand cwts.)	207·0	1,01·5	165·0	75·5
United Kingdom ,,	55·1	28·9	61·8	27·7
Germany ... ,,	127·3	60·9	73·3	33·4
Copper, wrought				
(thousand tons)	171·7	81·0	129·3	64·5
United Kingdom ,,	11·2	6·6	41·3	20·9
Germany ... ,,	129·0	58·2	46·6	23·2
Steel bars (other than cast steel) (thousand tons)	79·9	79·4	90·6	95·0
United Kingdom ,,	4·8	7·5	12·6	20·3
Belgium ... ,,	44·0	42·2	54·2	52·1
Luxemburg ,,	4·8	4·5	12·9	11·3
Germany ... ,,	18·5	17·5	5·3	5·0
Iron or steel beams, channels, pillars, girders and bridge-work (thousand tons)	44·7	57·5	78·9	100·1
United Kingdom ,,	17·8	30·3	29·9	45·4
Belgium ... ,,	17·6	18·2	37·0	41·0
Bolts and nuts ,,	6·4	18·1	4·7	14·3
United Kingdom ,,	1·3	5·0	1·5	6·1
Belgium ... ,,	2·3	4·6	1·6	3·3
Germany ... ,,	2·0	5·8	0·7	2·0
Hoops and strips ,,	15·3	23·2	12·4	18·4
United Kingdom ,,	6·4	11·3	6·7	11·2
Belgium ... ,,	6·0	7·7	3·7	4·6
Nails, rivets and washers other than wire nails (thousand tons)	9·4	26·8	8·3	24·3
United Kingdom ,,	4·0	11·2	3·2	8·6
Belgium ... ,,	1·9	4·5	2·1	4·6
Cast pipes and fittings ,,	5·1	11·9	5·7	12·8
United Kingdom ,,	3·8	9·2	3·1	8·7
Galvanised sheets and plates (thousand tons)	132·8	3,48·2	162·3	4,07·3
United Kingdom ,,	124·2	3,22·8	148·6	3,73·0
Tinned plates and sheets (thousand tons)	8·6	30·0	13·2	44·6
United Kingdom ,,	5·9	20·7	9·8	33·1
U.S.A. ... ,,	2·7	9·2	3·3	11·4
Sheets and plates, not galvanised or tinned (thousand tons)	37·8	51·2	39·8	54·4
United Kingdom ,,	11·1	18·5	23·8	35·2
Belgium ... ,,	17·5	21·4	14·1	16·9
Tubes, pipes and fittings, wrought (thousand tons)	16·3	49·1	25·1	69·9
United Kingdom ,,	6·2	23·0	13·7	40·5
Germany ... ,,	5·6	14·3	4·5	11·7
Belgium ... ,,	2·1	5·6	4·3	10·4

PRINCIPAL IMPORTS INTO BRITISH INDIA DURING THE SIX MONTHS, 1ST APRIL TO 30TH SEPTEMBER, 1926 AND 1927—*continued.*

	1926.		1927.	
	Quantity.	Value.	Quantity.	Value
		Rs. lakhs.		Rs. lakhs.
Wire nails (thousand tons)	7·6	13·4	5·7	10·5
United Kingdom ,,	0·3	0·3	0·2	0·5
Belgium ... ,,	4·7	8·2	2·8	5·1
Germany ... ,,	2·3	4·1	0·9	1·8
Wire rope ... ,,	1·4	9·6	2·4	14·8
United Kingdom ,,	1·3	8·7	2·2	13·8
Railway plant and rolling stock	—	1,92·8	—	2,05·9
United Kingdom	—	1,26·0	—	1,68·6
Australia	—	20·1	—	1·8
Germany	—	18·3	—	8·1
U.S.A.	—	10·1	—	5·5
Railway plant and rolling stock (Government Stores)	—	1,47·9	—	1,98·8
United Kingdom	—	95·3	—	1,05·1
Belgium	—	25·0	—	75·8
Hardware (excluding cutlery and electro-plated ware)	—	2,63·0	—	2,63·3
United Kingdom	—	89·3	—	1,02·2
Germany	—	88·1	—	82·2
U.S.A.	—	39·0	—	32·5
Cutlery...	—	21·3	—	22·4
United Kingdom ...	—	4·5	—	5·0
Germany	—	15·5	—	16·2
Electric fans and parts thereof	—	15·9	—	18·3
United Kingdom	—	9·3	—	10·6
Electric wires and cables ...	—	39·4	—	46·2
United Kingdom	—	33·3	—	39·3
Total of electrical instruments, apparatus, and appliances and parts thereof, not being machinery ...	—	1,20·6	—	1,39·4
United Kingdom	—	76·1	—	91·4
U.S.A.	—	19·7	—	17·9
Germany	—	12·0	—	13·5
Electrical machinery ...	—	1,11·7	—	96·8
United Kingdom	—	90·8	—	80·4
U.S.A.	—	9·4	—	5·9
Leather and manufactures thereof (excluding boots, shoes and belting for machinery)	—	24·9	—	31·2
United Kingdom	—	18·5	—	22·0
Matches (million gross)	3·5	44·8	2·1	28·2
Sweden ... ,,	2·4	32·9	1·7	23·1
Tin, unwrought (thousand cwts.)	26·4	47·7	30·1	58·5

PRINCIPAL IMPORTS INTO BRITISH INDIA DURING THE SIX MONTHS, 1ST APRIL TO 30TH SEPTEMBER, 1926 AND 1927—*continued.*

	1926.		1927.	
	Quantity.	Value.	Quantity.	Value.
		Rs. lakhs.		Rs. lakhs.
Mineral oils (million galls.)	79·3	4,06·0	95·0	4,77·5
Packing paper (thousand cwts.)	111·2	20·9	134·7	27·8
United Kingdom ,,	10·9	3·1	11·0	2·7
Germany ... ,,	38·7	6·9	28·5	7·2
Sweden ... ,,	25·8	4·7	56·9	11·1
Printing paper ,,	337·8	56·5	269·7	42·3
United Kingdom ,,	45·7	10·3	41·4	9·4
Norway ... ,,	94·8	14·3	102·6	12·8
Germany ... ,,	76·1	12·3	27·9	4·8
Austria ... ,,	52·1	7·9	32·8	4·7
Writing paper and envelopes (thousand cwts.)	110·7	33·0	122·8	35·5
United Kingdom ,,	41·2	16·2	39·4	16·5
Germany ... ,,	15·8	4·0	8·2	2·2
Norway ... ,,	15·8	3·7	20·4	4·7
Provisions	—	2,42·6	—	2,73·5
United Kingdom	—	92·6	—	100·0
Netherlands	—	62·9	—	81·0
Straits Settlements (including Labuan) ...	—	27·8	—	24·2
U.S.A.	—	21·2	—	24·0
Pneumatic motor covers (thousands)	99·8	45·3	222·2	88·3
United Kingdom ,,	36·0	16·6	70·1	25·8
France ... ,,	24·8	10·4	33·7	13·5
U.S.A. ... ,,	14·5	7·2	65·2	29·1
Canada ... ,,	12·0	6·2	28·7	12·0
Pneumatic motor-cycle covers (thousands)	3·0	0·8	6·4	0·8
United Kingdom ,,	2·1	0·7	3·9	0·5
Pneumatic cycle covers ,,	226·2	5·9	337·0	6·6
United Kingdom ,,	95·2	3·0	197·2	4·1
France ... ,,	94·5	2·0	135·8	2·4
Solid rubber tyres for motor vehicles (thousands)	4·4	5·3	6·2	7·8
United Kingdom ,,	2·3	2·9	2·6	3·4
U.S.A. ... ,,	1·4	1·7	2·2	2·7
Salt (thousand tons)	250·0	46·9	318·1	95·2
United Kingdom ,,	33·3	7·3	50·1	16·6
Aden and Dependencies ,,	87·5	15·6	102·0	30·7
Soap (thousand cwts.)	202·6	77·0	196·7	78·4
United Kingdom ,,	191·7	69·7	187·1	72·5
Betelnuts ,,	684·2	1,44·3	449·4	91·8
Stationery (excluding paper)	—	45·3	—	46·3
United Kingdom	—	21·8	—	26·6
Germany	—	17·2	—	11·9

PRINCIPAL IMPORTS INTO BRITISH INDIA DURING THE SIX MONTHS, 1ST APRIL TO 30TH SEPTEMBER, 1926 AND 1927—*continued.*

	1926.		1927.	
	Quantity.	Value.	Quantity.	Value
		Rs. lakhs.		Rs. lakhs.
Sugar, 16 Dutch standard and above (excluding beet) (thousand tons)	373·5	8,05·1	296·3	6,10·3
Java ... ,,	346·6	7,43·5	291·9	5,99·9
Beet sugar ... ,,	57·9	1,19·7	16·9	34·8
United Kingdom ,,	3·6	7·3	—	—
Tea chests, entire or in sections	—	25·4	—	33·5
United Kingdom	—	20·8	—	28·0
Cigarettes (thousand lbs.)	1,839·0	86·0	2,807·0	1,23·1
United Kingdom ,,	1,824·0	85·2	2,788·0	1,22·1
Umbrellas and fittings ...	—	29·1	—	33·2
United Kingdom	—	9·0	—	8·8
Germany	—	12·3	—	15·8
Japan	—	6·5	—	6·7
Cycles (other than motor cycles) and parts thereof and accessories (excluding tyres)	—	54·2	—	51·2
United Kingdom	—	45·2	—	43·8
Germany	—	7·6	—	6·3
Motor cars (including taxi-cabs) ... ... No.	5,966	1,25·4	7,167	1,58·8
United Kingdom ... ,,	713	24·4	1,033	34·1
Canada ... ... ,,	2,363	35·1	1,854	31·9
U.S.A. ... ... ,,	1,925	43·1	3,283	67·6
Italy ... ... ,,	696	17·3	735	18·5
Motor cycles ... ... ,,	816	4·9	946	5·2
United Kingdom ... ,,	746	4·5	869	4·8
Motor omnibuses, vans and lorries ... ... No.	2,954	57·0	4,434	72·4
United Kingdom ... ,,	178	9·5	174	10·1
Canada ... ... ,,	1,593	20·4	2,137	27·2
U.S.A. ... ... ,,	1,076	24·6	1,994	32·9
Paints and colours (thousand cwts.)	181·9	51·5	217·1	59·5
United Kingdom ,,	124·0	37·1	141·8	40·2
Germany ... ,,	18·5	3·9	12·6	4·3
Ale, beer and porter (thousand galls.)	1,835	44·8	2,173	49·7
United Kingdom ,,	1,107	25·9	1,433	30·5
Germany ... ,,	571	15·6	526	14·8
Spirits ... ,,	1,051	1,10·4	979	1,01·6
United Kingdom ,,	363	66·1	339	61·0
France ... ,,	205	25·0	171	21·9
Apparel (excluding hosiery and boots and shoes) ...	—	82·0	—	77·6
United Kingdom	—	41·6	—	33·9
Germany	—	10·8	—	11·9
France	—	8·7	—	13·4

PRINCIPAL IMPORTS INTO BRITISH INDIA DURING THE SIX MONTHS, 1ST APRIL TO 30TH SEPTEMBER, 1926 AND 1927—*continued.*

	1926.		1927.	
	Quantity.	Value.	Quantity.	Value.
Boots and shoes		Rs. lakhs.		Rs. lakhs.
(thousand pairs)	936·2	27·7	1,291·0	31·5
United Kingdom ,,	401·9	15·3	430·6	14·3
U.S.A. ... ,,	239·7	6·3	316·3	7·6
Bobbins	—	20·0	—	19·1
United Kingdom	—	17·6	—	17·0
Cement .. (thousand tons)	37·6	21·2	48·6	28·5
United Kingdom ,,	29·7	17·5	41·0	24·4
Coal ... ... ,,	74·8	14·9	134·1	31·2
United Kingdom ,,	6·2	1·5	31·4	8·4
Union of S. Africa ,,	46·5	9·1	71·8	15·1
Aniline Dyes (thousand lbs.)	4,663·8	66·9	5,803·3	74·8
United Kingdom ,,	202·2	3·2	142·5	2·9
Germany ... ,,	2,678·7	39·3	4,191·5	53·9
U.S.A. ... ,,	1,011·9	9·6	701·2	6·3
Earthenware and porcelain ...	—	34·8	—	35·3
United Kingdom	—	13·6	—	14·4
Japan	—	13·2	—	12·7
Glass and glassware	—	1,35·4	—	1,26·6
United Kingdom	—	12·9	—	11·6
Czechoslovakia	—	39·7	—	31·1
Japan	—	31·0	—	33·0
Germany	—	26·9	—	26·9
Belgium	—	15·6	—	13·4

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DEPARTMENT OF OVERSEAS TRADE.

Report

ON THE

Conditions and Prospects of British Trade in INDIA

1927-28.

By THOMAS M. AINSCOUGH, C.B.E., M.Com., F.R.G.S.
His Majesty's Senior Trade Commissioner in India and Ceylon.

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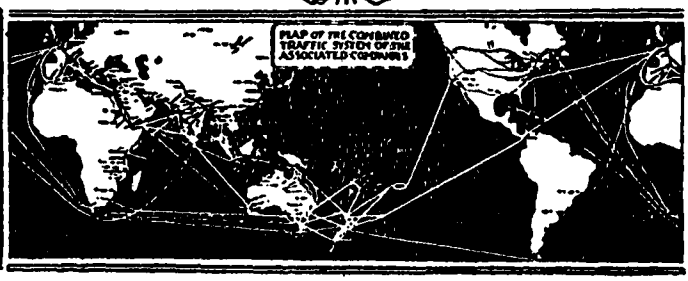

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To foster British overseas trade, the Department has developed and controls the following services of Commercial Intelligence Officers :—

1. In the Empire.

The Trade Commissioner and Imperial Trade Correspondent Services.

At the present time there are 13 Trade Commissioners' offices. These are situated, four in Canada (Montreal, Toronto, Vancouver, Winnipeg) ; two in South Africa (Cape Town, Johannesburg) ; two in Australia (Sydney, Melbourne) ; two in India (Calcutta and Bombay—to cover also Ceylon) ; and one each in New Zealand (Wellington), British East Africa (Nairobi) and British West Indies (Trinidad).

The Trade Commissioners in the Dominions have the assistance of Imperial Trade Correspondents at a number of important centres.

In various parts of the Empire in which at present there are no commissioners, there are correspondents with whom the Department deals direct.

The Department is represented in India by Mr. T. Ainscough, C.B.E., H.M. Senior Trade Commissioner ; Mr. W. D. Montgomery Clarke, H.M. Trade Commissioner, Calcutta ; and Major R. W. Clarke, H.M. Trade Commissioner, Bombay.

2. In Foreign Countries.

(*a*) *The Commercial Diplomatic Service attached to the British Diplomatic Missions.*

This service consists of between thirty and forty posts in all, and the officers of the service are stationed in all the more important foreign markets of the world. The members of the Commercial Diplomatic Service are styled " Commercial Counsellors " in the highest grade, and " Commercial Secretaries " in the two lower grades. They are members of the staff of the British Embassy or Legation in which they serve.

The Commercial Diplomatic Officer has general supervision over the commercial work of the consular offices in his area, and, with the co-operation of these two services, a complete network of Government commercial representatives is thrown over foreign countries.

(*b*) *The British Consular Service.*

Particular attention has been given to the commercial side of consular work since the re-organisation of the service. In certain countries where no Commercial Diplomatic Officer is stationed the senior Consular officer undertakes duties of a similar character.

Members of British firms are urged to call upon the Department's representative abroad when they visit an overseas country. It is also important that they should make a point of their representatives abroad keeping in close touch with the Department's officers.

NOTE.

It should be understood that the views expressed in annual reports are the views of the officers themselves, and are not necessarily in all respects the views of the Department.

COVERING DESPATCH.

To the Right Honourable Sir Philip Cunliffe-Lister, K.B.E., M.P., President of the Board of Trade.

Office of H.M. Senior Trade Commissioner in India,
Fairlie House,
Calcutta.
1928.

SIR,

I have the honour to forward for your information a report on the conditions and prospects of British trade in India during the Indian fiscal year 1927-28.

The year under review has been a somewhat colourless one, but is noteworthy if only for the reason that a definite check has been given to the downward trend of the British share of India's imports which had been such a marked feature of the three previous years. Although this is to some extent due to a natural recovery from the disastrous effects of the coal strike of 1926, there are distinct signs that the improvement is being maintained during the present year. I am hopeful, therefore, that the general revival in trade, which is anticipated during the next few years, will be accompanied by a steady strengthening of the British position in the import trade of the United Kingdom's greatest market.

At the same time, systematic and carefully considered effort is required on the part of British manufacturers and exporters to meet the intense foreign competition, which is now being experienced in almost every trade, and to cope with the many weakening factors, which are the inevitable concomitant of the extension of self-government to India. This question has been dealt with in my remarks on marketing problems in Chapter I and in the lengthy treatment of the rupee tender system in Chapter II. As in previous reports, it has been my aim not merely to state facts and tendencies but, wherever possible, to comment on them and to advance practical and carefully considered suggestions.

Once again I have to acknowledge my indebtedness to the Officials of the Commerce, Industries and Finance Departments of the Government of India for their unfailing courtesy and assistance during the year. Special thanks are due to the Director-General of Commercial Intelligence and Statistics and his staff, who have prepared the special tables embodied in the report, to the Chief Controller and staff of the Indian Stores Department, and to the Collectors of Customs for their valuable help and co-operation which have always been so willingly rendered. I would also like to record my appreciation of the numerous memoranda which have been contributed by Engineers and other Officers in charge of important works throughout the country and which have, in most cases, been incorporated with due acknowledgments in the report.

I have the honour to be, Sir,

Your most obedient servant,

THOMAS M. AINSCOUGH,
H.M. Senior Trade Commissioner in India.

PREFATORY TABLES.

Note.—The author desires to express his indebtedness to the Director-General of Commercial Intelligence and Statistics for the particulars given in these tables.

I.—TRADE DISTRIBUTION:—PRINCIPAL ARTICLES.

TABLE SHOWING VARIATIONS IN THE SHARES OF THE PRINCIPAL ARTICLES IN THE IMPORT AND EXPORT TRADE OF BRITISH INDIA DURING THE LAST THREE YEARS, AS COMPARED WITH AVERAGES OF THE PRE-WAR AND WAR PERIODS.

IMPORTS (*in percentages*).

(Sea borne: exclusive of treasure and of imports on Government account).

	1909-14 Average.	1914-19 Average	1925-26	1926-27	1927-28
Cotton manufactures ...	36	35	29	28	26
Iron and steel	7	6	8	7	9
Machinery	4	4	7	6	6
Sugar	9	10	7	8	6
Railway plant	4	5	2	1	2
Hardware	2	2	2	2	2
Mineral oil	3	3	4	4	4
Silk	3	2	1	2	1
Other articles	32	33	40	42	44

EXPORTS (*in percentages*).

(Sea borne: exclusive of treasure and of exports on Government account).

	1909-14 Average	1914-19 Average	1925-26	1926-27	1927-28
Jute, raw and manufactures	19	25	26	26	26
Cotton, raw & manufactures	15	16	28	23	18
Food-grains	21	17	13	13	13
Seeds	11	6	8	6	8
Tea	6	8	7	9	10
Hides and skins	7	8	2	2	3
Other articles	21	20	16	21	22

II.—TRADE DISTRIBUTION:—PRINCIPAL COUNTRIES.

TABLE SHOWING VARIATIONS IN THE SHARE OF THE PRINCIPAL COUNTRIES IN THE IMPORT AND EXPORT TRADE OF BRITISH INDIA DURING THE LAST THREE YEARS, AS COMPARED WITH AVERAGES OF THE PRE-WAR AND WAR PERIODS.

IMPORTS (*in percentages*).

(Sea borne: exclusive of treasure and of imports on Government account).

	1909-14 Average	1914-19 Average	1925-26	1926-27	1927-28
United Kingdom	63	56	51	48	48
Other parts of the British Empire	7	9	8	7	7
United States of America ...	3	7	7	8	8
Japan	2	10	8	7	7
Java	6	8	6	6	6
Germany	6	1	6	7	6
Other foreign countries ...	13	9	14	17	18

Note.—Imports from Germany during the quinquennium, 1914-19, consisted mostly of receipts in the early part of the official year 1914-15, and the residue of cargoes of prize vessels imported during the war period.

EXPORTS* (*in percentages*).

(Sea borne: exclusive of treasure and of exports on Government account).

	1909-14 Average	1914-19 Average	1925-26	1926-27	1927-28
United Kingdom	25	31	21	21	25
Other parts of the British Empire	16	21	14	17	16
United States of America ...	8	12	10	11	11
Japan	8	11	15	13	9
France	7	4	6	4	5
Germany	10	1	7	7	10
Other foreign countries ...	26	20	27	27	24

Note.—Exports to Germany during the quinquennium, 1914-19, were confined to the early part of the official year 1914-15.

*Including re-exports.

COMMERCIAL SUMMARY.

Area—	Sq. miles.
British India	1,094,300
Native States	711,032
Total	1,805,332

Population Census of 1921—	
British India	247,003,293
Native States	71,939,187
Total	318,942,480

Language (*Commercial use of English, etc.*)—English.

Monetary unit(*s*)—

3 pie=1 pice.
4 pice=1 anna
16 annas=1 rupee.
1 lakh=Rs.1,00,000
1 crore=100 lakhs.

e.g., Rs.1,45,67,200=1 crore, 45 lakhs, 67,200 rupees.

Rate of Exchange (*pre-war and current average quotations*)—

Pre-war	1s. 4d.
Current. June 30th, 1928	1s. 6d.

Index Numbers—July, 1914=100.

Wholesale prices, Bombay	March, 1928=142
Retail prices (food), Bombay	March, 1928=155
Cost of living (working class), Bombay ...	March, 1928=145

Principal weights and measures (*other than ordinary metric or British*) *with British equivalents.*

Weights and measures in India vary not only from district to district but also for different commodities within the same district, and though the railways have given a lead to the adoption of a uniform system, the country is so vast that the differences are likely to persist for many years to come. The principal units in all the scales of weights are the maund, seer and the tola, and the standard weights for each of these are 82·28 lb., 2·057 lb. and 180 grains troy. The tola is the same weight as the rupee. In addition to these weights, there is the viss of 3·60 lb. or 140 tolas and the candy of 500 to 840 lb. It is not necessary for the purposes of this volume to detail any variation of the weight of the maund, except those which enter into the export trade. It will be sufficient to say that in any particular city there are probably as many different maunds as there are articles to weigh. The only varieties which need be considered in connection with the foreign trade are the Bengal or railway maund already specified, the factory maund of 74 lb. 10 oz. 11 dr., the Bombay maund of 28 lb. and the Madras maund of 25 lb. In October, 1913, the Government of India appointed a Committee to inquire into the whole question, and their majority report, which was presented in the following year, recommended the extension of the railway system based on the 180 grains tola, while the minority report advocated the adoption of the metric system. The view of the Provincial Governments on these reports were obtained and the Government of India in their Resolution dated the 3rd January, 1922, declared themselves in favour of the ultimate adoption in India, excluding Burma, of a uniform system of weights based on the scale.

now in use on the railways. It has been decided that no new measures prescribing all-India measures of weight or capacity should be introduced at present, but that the Local Governments should take such executive action as they can to educate public opinion in favour of the standard maund and seer.

In the table below an attempt has been made to present within a small compass the principal weights and measures employed in the Indian export trade.

Principal weights and measures in use in the export trade.

Name of Unit.	*British Imperial Value.*
General.	
Tola	180 grains troy,
Seer (Standard or Railway or Indian) ...	2·057 lb.
Seer (Factory)	1 lb. 13·5 oz.
Viss	3·60 lb.
Maund (Standard or 40 seers Railway or Indian)	82 lb. 4 oz. 9 dr.
Maund (Factory)	74 lb. 10 oz. 11 dr.

Note.—For local variations consult " Handbook of Commercial Information for India," by C. W. E. Cotton, C.I.E., I.C.S., 2nd Edition, 1924.

Total Imports—1st April, 1927, to 31st March, 1928.

	Rs.
Merchandise	2,49,90,01,719
Government Stores	11,62,56,128
Treasure	49,92,92,805
Total	3,11,45,50,652

Principal Imports.—Cotton manufactures, sugar, iron and steel, machinery.

Imports of merchandise from United	Rs.
Kingdom	1,19,26,94,958
,, ,, ,, United States of America	20,43,72,542
,, ,, ,, Japan ...	17,90,84,456
,, ,, ,, Germany ...	15,35,31,851
,, ,, ,, Java	14,70,24,717

Total Exports.—(Indian merchandise). 1st April, 1927, to 31st March, 1928, Rs.3,19,11,28,062.

Principal Exports.—Cotton, Jute, Grain, Pulse, Tea.

Exports of Indian merchandise to United	Rs.
Kingdom	78,90,70,810
,, ,, ,, United States of America	35,90,59,565
,, ,, ,, Germany ...	30,68,49,899
,, ,, ,, Japan ...	29,00,20,561

Railway mileage.—31st March, 1927.

Railways owned by the State...	40,299
Other railways	12,587
Total route mileage opened for traffic	52,886

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REPORT

ON THE

CONDITIONS AND PROSPECTS OF BRITISH TRADE

IN

INDIA,

1927-1928.

CHAPTER I.

General Review of the Period.

Authorities are unanimous in the view that the improvement in economic conditions in India during the past year was most marked and that the effects of the post-war trade depression are at last being dissipated. This has been due firstly, to improved economic conditions in the principal markets of the world, with the noteworthy exceptions of Russia and China; secondly, to the resulting stability in world prices which appear to be at last finding a post-war position of equilibrium; thirdly, to the advantages accruing from the stabilisation of the rupee; and, lastly, to favourable conditions in the country itself.

The monsoon, for the sixth year in succession, was a good one, and although floods caused considerable damage in Gujerat and certain districts in Bengal crops in general were bountiful ones. The exports of Indian merchandise showed a considerable increase, to which, with the exception of raw cotton, all the principal items contributed. Shipments of raw jute were 184,000 tons higher than in the previous year and export of jute manufactures showed a slight increase. Exports of grain, pulse and flour advanced by over Rs.3½ crores in value, largely due to increased shipments of wheat. Material increases are also to be recorded in the trade in tea and hides and skins. A decrease in the exports of raw cotton, amounting to 500,000 bales in quantity and 11 crores in value, was mainly due to reduced shipments to Japan, probably resulting from that country's financial difficulties during a part of the year and also to the temporary substitution by Japanese spinners of large quantities of American cotton purchased at the end of 1926, when prices of middling American were abnormally low.

The import trade of the country rose by nearly 19 crores of rupees, the most noteworthy features being an advance of 2 crores in the imports of raw cotton from the United States and of nearly 2 crores in the arrivals of mineral oils, largely due to the heavy shipments of Soviet oil from Black Sea ports. In manufactured goods iron and steel imports advanced by nearly 5 crores, machinery by nearly 2½ crores, railway plant by 1½ crores and

vehicles (largely motor vehicles) by 1¼ crores. The trade in imported cotton yarns and piece-goods, however, only advanced by 11 lakhs to a total of over 65 cores. The quantitative improvement, however, is greater than is apparent from a study of the values, inasmuch as the prices of piece-goods, iron and steel, and machinery were all on a lower level than in the previous year.

The value of the total imports increased, as compared with 1926-27, by Rs.19 crores, or 8 per cent., and amounted to Rs.250 crores, while the total exports, including re-exports, rose by Rs.19 crores, or 6 per cent., to Rs.329 crores. The exports of Indian merchandise showed an increase of Rs.18 crores, or 6 per cent., and re-exports of Rs.1,53 lakhs, or 19 per cent. The grand total of imports, exports and re-exports amounted to Rs.579 crores as against Rs.541 crores, an increase of Rs.38 crores, or 7 per cent. The balance of trade in merchandise in favour of India rose from Rs.79 crores to nearly Rs.82 crores. This was liquidated to the extent of 32 crores by imports of precious metals, leaving a total visible balance of trade of Rs.49·68 crores.

The Hon. the Finance Member, in introducing the budget on March 1st, 1928, very clearly summarised the position when he stated:—

"During the last two years prices in general have shown a stability unknown since the outbreak of the war. While more stable world conditions are partly responsible for this result, without which there cannot be a healthy basis for the expansion of trade, the figures of India's trade reflect the advantages which have accrued from the standardisation of the rupee. I always regard railway earnings as an important barometer of trade and the House has already been made aware of the remarkable improvement in the railway figures for 1927-28 which, by enabling important reductions to be made in railway charges, will itself give a new stimulus towards business and agricultural prosperity. In addition, I think I see other clear indications that during the last year Indian commerce has made a steady advance and that the effects of the post-war trade depression are at long last being dissipated."

In my last two reports I have alluded to the continuous strengthening of the financial position of the Government of India, year by year, as a result of greater prosperity and a far-sighted financial policy. This progress continued during the year under review. For the financial year 1927-28, the revised estimate, like the original budget, exhibited neither a surplus not a deficit. For the year 1928-29 a surplus is estimated of Rs.2,63 lakhs, but it is proposed to utilise Rs.2,58 lakhs of this for the complete extinction of the provincial contributions, leaving a small credit balance of Rs.5 lakhs. This marks an important epoch. As Sir Basil Blackett stated, the provinces can now proceed to carry out their local development schemes with the certainty that no part of their revenues will be diverted to the Central Government. Similarly the Central Government will be free to turn their minds on the one hand to new directions in which money can be usefully laid out for India's advancement, and on the other hand to the readjustment of the burden of taxation.

It is difficult to assess the precise effects of the stabilisation of the rupee in relation to gold, which was described in last year's report. There is little doubt, however, that the spirit of security and confidence which is engendered by a stable currency has contributed to the favourable results of the year and, by the elimination of that element of uncertainty and speculation which is such a handicap to the transaction of all sound business, will continue to be a strong factor in the promotion of India's economic prosperity.

The jute, tea and engineering industries were fairly prosperous during the year but the Bombay cotton mill industry continued to be depressed, although it is generally anticipated that the mills will show better results for 1927 than during the preceding year, largely owing to the purchases of exceptionally cheap American cotton at the beginning of 1927 and the subsequent rise in its value. This advantage, however, was lost during the last two or three months of the year when these stocks were exhausted. On the average about 10 per cent. of the looms and 20 per cent. of the spindles in Bombay remained idle during the year, yet, in spite of this, stocks at the close of 1927 showed an increase of 30 per cent. for cloth and 15 per cent. for yarn. Heavy imports of Japanese and Chinese yarns rendered profitable working very difficult, although it must be admitted that the cotton mill industry in other parts of India, such as Cawnpore, the Central Provinces and Madras, was comparatively prosperous. The prolonged strike, which began in April, 1928, has had the effect of reducing stocks and may, in the long run, prove a blessing in disguise.

A serious wave of labour unrest has swept through the country since the beginning of 1928. It began as a result of the efforts of the railway authorities to reduce the number of redundant men employed in the railway workshops. The carrying into practice of the recommendations of the Raven Commission raised the efficiency of the shops to such an extent that it was found that many thousands of workers were not required. The authorities were prepared to effect the reduction as gradually and with as little hardship as possible, but the workmen struck in the Khargpur shops of the Bengal-Nagpur Railway in February and a serious strike of four months' duration has just concluded at the East Indian Railway's shops at Lillooah. Strikes also took place at several of the private engineering works in Calcutta, whose men were influenced by the railway employés.

The Bombay cotton mills have also been closed since April, 1928, owing to a dispute resulting from efforts made by the millowners to raise efficiency by a redistribution of functions and a co-ordination of rates of pay. The workers were still out in July.

Discontent had for some time been apparent at the Tata Iron and Steel Works, in spite of the efforts of the company to arrive at a fairer adjustment of rates of pay, and sectional strikes were frequent when, in April, the company announced a general scheme

of bonus on production, amounting to Rs.10 lakhs per annum, which it was thought would meet labour demands. This did not meet with the response which was anticipated, and as production was being rendered impossible by *hartals* and sectional stoppages, the company closed the works on June 1st, damped down the furnaces and waited until the men were prepared to meet them on common ground. At the end of June the company published the terms on which they are prepared to open the works. They renew the offer of the bonus and are carefully considering all reasonable representations with regard to wages. They state, however, that they now intend to carry out the policy of employing only as many men as are essential for efficient working. This will involve a reduction of about one-fourth of the number of men previously employed.

In all these strikes one sees the attempt to resist the inevitable raising of efficiency in Indian industry by the greater use of improved machinery and organisation which must result in a reduction in the number of workers employed in individual concerns. Such a period of dislocation was almost inevitable during the change-over from the effete old methods with a large force of ill-paid and inefficient labour to the new and efficient systems with the increased use of machinery and labour-saving devices involving the employment of a reduced but more highly skilled and better paid labour force. There can be no doubt that the newer methods will prevail and that Indian industry will emerge from the crisis on a sounder and more competitive basis.

The communal riots, which were such a disturbing factor in 1926-27, did not seriously interfere with the internal movements of merchandise in the year under review. The tension between the Hindu and Moslem communities is still acute, but the outbreaks which occurred were, fortunately, not in the large trade centres.

The year has been crowded with events, such as the preliminary tour of the Statutory Commission on the Reforms, which are of the first political importance, but which it is out of place to discuss here except in so far as they react on the trade of the country. Efforts were made by the Swaraj party in Bengal to reinforce their activities in opposition to the appointment of the Simon Commission by proclaiming a boycott of British goods. These efforts, however, have had little or no effect. In the first place, the extreme political element have little influence in trading circles, and secondly there is such a strong Indian vested interest in the distribution of imported goods that they are able to defend themselves against any sporadic movement of this kind which affects their livelihood. There is no doubt, however, that the racial feeling among the younger generation of Indians, particularly in Bengal, is bound to have some influence on the sales of British goods. As I have frequently pointed out, however, there is very little sentiment of any kind shown in the transaction of Indian business.

Price is the controlling factor. It is therefore doubtful whether our foreign competitors have scored from political feeling to any material extent. That feeling has probably been of assistance to them in strengthening their connections in the market, particularly in the case of Germany since the war, but the business secured has, in most instances, been obtained owing to lower quotations or other solid advantages to the buyer.

The Outlook in the Import Trade.—The following remarks with which I concluded the forecast in my report for the year 1926-27 apply with almost greater force to the situation to-day :—

" India stands to-day on a firmer economic basis than she has ever done. Her credit, both internal and external, has never been so good. Recurring surpluses, once the provincial contributions are finally remitted by 1929, will probably be applied to the reduction of taxation, when it is hoped that favourable consideration will be given to the reduction of certain of the import duties which bear heavily on trade expansion. Exchange has been stabilised at 1s. 6d., a rate which is, comparatively speaking, favourable to the import trade. The agriculturist is prosperous and has probably a greater reserve to-day than he has ever had. The stocks of imported goods, notably of textiles, are light, and large purchases of them are overdue. All these factors point to a revival in the import trade during the next twelve months."

Once again the official forecast for the south-west monsoon is a most optimistic one. The Director-General of Observatories, on June 6th, 1928, stated that the monsoon rainfall is likely to be normal or in excess in the Peninsula and north-west India. The indications point, for the sixth year in succession, to abundant and well-distributed rains throughout the country.*

So far as cotton textiles are concerned, which constitute nearly 40 per cent. of British shipments to India, the prospects are, on the whole, favourable. Stocks are fairly light, both in the ports and in the mofussil districts. The resolutions of the Marwari Chamber of Commerce in Calcutta have largely contributed to this state of affairs in the most important market in the country. A study of the index numbers of wholesale prices in Calcutta shows that, of cotton manufactures, the annual average for 1927 was 159, as compared with 173 in the previous year. This would appear to be a figure at which the agriculturist can afford, after a succession of good crops, to purchase larger quantities. The future largely depends upon the course of Manchester prices, which in turn hinge upon the rates for the new cotton crop. With cloth prices on the basis of shilling cotton as they are at present, it is unlikely that any considerable weight of purchases will be made, but should Lancashire prices recede, as a result of a larger crop, to the basis of 8*d.* or even 9*d.* cotton, it is probable that a considerable buying movement for all Indian markets will take place towards the end of the year.

* This anticipation has been fulfilled except in regard to a few districts in Northern and Central India where the crops have partly failed.

There is every likelihood that the imports of iron and steel will continue to expand in spite of increased production in India. There is bound to be a check during the year 1928-29 to the steadily increasing output of the Tata Steel Works on account of the strike, and the import trade will probably receive a temporary fillip in consequence. Quite apart from this purely fortuitous stimulus, however, I have every confidence that the consumption of steel in India will increase at a very rapid rate *pari passu* with the general development of the country. The Tata works will probably meet a steadily increasing portion of this demand, but railway, public works, building and general industrial requirements will be so great that the market for structural sections, plates, sheets, &c., rolled to the British standard specification will also continue to expand, particularly in view of the lower rates of duties now imposed on British standard steel.

The outlook in the import trade for machinery and plant is promising. The British engineering industries are bound to benefit from the large schemes of railway construction, harbour development, irrigation and hydro-electric enterprises and bridges building, which are dealt with in Chapter IV and elsewhere in this report. In Chapter II, however, will be found a description of the changed methods of purchase which will result from the inauguration of the rupee tender system for Government stores. The extent to which British engineering firms will be successful will largely depend upon their readiness to adapt their Indian policy to the changed conditions and to develop a thoroughly efficient sales, technical and service organisation on the spot. Apart from the requirements of Government, however, the steady progress which is being made throughout the country in the application of power to small industries, agricultural operations and lighting is certain to result in an increasing demand for boilers, prime movers and electrical plant. The imports of textile machinery are also likely to reflect the prosperity of the jute industry and the recovery and modernisation of the cotton mills. Mining and oil-well engineering provide an improving market for plant of all kinds, while the demand for specialities such as sewing and knitting machines, typewriters, &c., grows apace.

After the period of acute depression, through which, with few exceptions, Indian industries have passed during the past few years, there are now unmistakable signs of recovery. This should stimulate the demand for the innumerable miscellaneous items of equipment, plant and stores which—in the aggregate—amount to a very large sum and constitute a valuable British trade.

General Position of British Trade in India.—The following table, compiled by the Director-General of Commercial Intelligence and Statistics, clearly shows the percentage shares of the United Kingdom, the British Empire as a whole, and the principal foreign countries in the trade of India during the fiscal year 1927-28, as compared with the previous year and the last complete pre-war year :—

	Imports.			Exports, including re-exports.			Total Trade.		
	Pre-war average.	1926-27	1927-28	Pre-war average.	1926-27	1927-28	Pre-war average.	1926-27	1927-28
	Share per cent.	Share per cent.	Share per cent.	Share per cent.	Share per cent.	Share per cent.	Share per cent.	Share per cent.	Share per cent.
United Kingdom	63	48	48	25	21	25	40	33	35
British Possessions	7	7	7	16	17	16	12	13	12
TOTAL BRITISH EMPIRE ...	70	55	55	41	38	41	52	46	47
TOTAL FOREIGN COUNTRIES	30	45	45	59	62	59	48	54	53
Principal Countries.									
BRITISH EMPIRE—									
United Kingdom	62·8	47·8	47·7	25·1	21·5	25·4	40·0	32·8	34·9
Ceylon	·5	·6	·8	3·7	4·8	4·8	2·4	3·0	3·1
Straits Settlements	2·1	2·5	2·3	3·4	3·1	2·8	2·9	2·8	2·6
Australia	·7	·7	·8	1·4	2·5	2·0	1·1	1·8	1·5
Hongkong	·7	·4	·5	4·1	1·0	·7	2·7	·7	·6
Other British Possessions ...	2·9	2·9	2·9	3·4	5·6	5·2	3·2	4·4	5·3
TOTAL BRITISH EMPIRE	69·7	54·9	55·0	41·1	38·5	40·9	52·3	45·5	47·0
Foreign Countries.									
Germany	6·4	7·3	6·1	9·8	6·6	9·8	8·5	6·9	8·2
United States	3·1	7·9	8·2	7·5	11·1	11·2	5·8	9·7	9·9
Japan	2·5	7·1	7·2	7·5	13·3	8·9	5·5	10·7	8·1
Java...	6·4	6·2	5·9	1·3	1·0	·8	3·3	3·2	3·0
France	1·5	1·5	1·7	6·6	4·5	4·9	4·6	3·2	3·5
China (exclusive of Hongkong and Macao)	1·1	1·4	1·8	3·9	3·7	1·4	2·8	2·7	1·6
Belgium	1·9	2·9	3·0	5·3	2·9	3·3	3·9	2·9	3·2
Italy	1·0	2·7	2·7	3·2	3·7	4·0	2·3	3·3	3·4
Other Foreign Countries	6·4	8·1	8·4	13·8	14·7	14·8	11·0	11·9	12·1
TOTAL FOREIGN COUNTRIES ...	30·3	45·1	45·0	58·9	61·5	59·1	47·7	54·5	53·0
TOTAL	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0

It is satisfactory to note that the steady reduction in the United Kingdom's share of the import trade, which fell by no less than 10 per cent. in the previous three years, has at last been checked. The figure of 47·7 per cent. is actually one decimal point lower than the previous year, but in view of the greatly increased imports of raw materials in which the United Kingdom has no interest, the figure, so far as competitive goods are concerned, is really considerably higher. Imports from the United Kingdom advanced by 9 crores of rupees from Rs.110 crores to Rs.119 crores, which is all the more remarkable when one considers that the values of the British shipments of cotton textiles, which constitute 40 per cent. of the British trade, were actually reduced. The result is due to greatly increased shipments of iron and steel, machinery, railway plant, hardware, motor cars, motor cycles, cycles and other manufactured goods, which involve a material strengthening of the British position. This improvement continued during the first three months of the present fiscal year, and there are grounds for hope that our relative position will be still further strengthened during the year 1928-29. It should be borne in mind that the year 1926-27 included the general strike and the prolonged coal stoppage; and stocks of British goods in India had to be replenished. This process was completed many months ago and progress still continues. Any material relative improvement in the British share of the cotton textile trade would probably advance the total percentage figure by several points.

Foreign Competition.—Foreign competition now enters into practically every trade, including those which have hitherto been almost exclusively British. The outstanding features of the year have been intensified American competition in machinery, motor cars, rubber tyres, electrical apparatus and fents; increased shipments from Germany of dyes, chemicals, hardware, machinery, artificial silk and woollen piece-goods; an advance of nearly 2 crores in the value of the imports of grey, white and coloured piece-goods from Japan; larger purchases of Italian artificial silk yarn and piece-goods, woollens and coloured woven and dyed cotton goods, and a continuance of severe Belgian competition in iron and steel and railway material. There are several features, however, which deserve special mention, and I will, therefore, deal with the principal competing countries in turn. Statements showing the values of the principal imports from each country will be found in the appendix on pages 197 *seqq.*

American.—There has been a material increase in the imports of American products amounting to over 2 crores in value. The percentage advanced from 7·9 to 8·2. An analysis of the returns show that this is mainly attributable to an increase of over 2 crores in the imports of American cotton, purchased in the early months of 1927 when the disparity in price between the American and the

Indian staple had almost disappeared. This is likely to be a temporary phase. Imports of motor cars rose by nearly Rs.77 lakhs and of tyres by over Rs.30 lakhs, while instruments and apparatus, machinery, building materials, boots and shoes and toilet requisites were all higher. Apart from raw materials such as mineral oils and raw cotton, which last year contributed nearly 50 per cent. of the United States trade, American competition is keenest either in those standardised articles such as motor cars, typewriters, &c., where American prices are extremely favourable and where the manufacturers take a very close personal interest in the distribution, or in industrial machinery, tools, electrical equipment, boots and shoes, toilet requisites, &c., where they find a market by strenuous salesmanship and an effective use of modern advertising and distributing methods. In a recent report on the South American markets by the Deputy Minister of Commerce, Canada, he stated that British brains, capital and experience were now employed in increasing the trade of the United States at the expense of Great Britain, and this was largely because American exporters, recognising the qualifications of British commission houses, were enlisting their services " by giving larger commissions, attending more strictly to the needs of the country, manufacturing what is wanted, sending out factory experts and mechanics and also expert salesmen, and giving service after the sale is made." This might be said with almost equal truth with regard to the Indian market. The American manufacturer appears to have grasped the fact that he must follow up his goods until they reach the hands of the consumer. He assists his agents in every way, by granting adequate advertising and travelling allowances and by visiting the market either himself or in the person of an energetic representative.

The United States Government is actively supporting this campaign, which is aimed at securing a greater share of India's trade. Active Consular posts are established at Calcutta, Bombay, Karachi, Madras and Rangoon, and at least four Trade Commissioners are stationed in the country who report to, and are under the control of, the Bureau of Foreign and Domestic Commerce, Washington. Every effort is being made by reports and interviews to interest the American manufacturer in the Indian market.

German.—The past year witnessed a decline in the imports from Germany from 16·9 crores of rupees to 15·3 crores. The percentage share fell from 7·3 to 6.1, which brings it just below the pre-war figure of 6·4. German shipments in 1926-27 were temporarily swollen by over a crore's worth of beet sugar, imported when Java prices were high. This trade has now ceased: German shippers have regained their hold on the trade in dyes and are making a determined bid for the valuable business in

heavy chemicals and drugs. They are actively competing in machinery of all kinds and in the innumerable items of cheap hardware and sundries used in the bazaars. Wherever low priced goods are required and quality is not the main desideratum, German shippers can frequently undercut British prices to the extent of from 10 to 25 per cent.

Japanese.—Imports from Japan during the year rose from Rs.16·5 crores to Rs.17·9 crores, while the percentage advanced from 7·1 to 7·2. Japanese competition in textiles has been dealt with at some length in Chapter V. The main features during the year were increases of Rs.1·23 crores in grey piece-goods, nearly Rs.6 lakhs in bleached goods and Rs.38 lakhs in coloured goods. There was a reduction of nearly a crore's worth of cotton yarns. Apart from these textile items and one or two miscellaneous lines such as crockery, Japan's shipments to India do not come into direct competition with British products but compete more with Germany and Czechoslovakia.

Italian.—The share of Italy in the import trade of India before the war was only 1 per cent. During the years 1926-27 and 1927-28 it has remained steady at 2·7 per cent. Imports of Italian goods rose from Rs.6·2 crores in 1926-27 to Rs.6·7 crores in the year under review, the increases being principally in coloured cotton goods, artificial silk mixtures and woollen piece-goods. The value of Italian motor cars imported declined by about a lakh. The following figures will give some idea of the strides made by Italian textiles during the last three years:—

	1925-26 Rs. (lakhs).	1926-27 Rs. (lakhs).	1927-28 Rs. (lakhs).
Coloured, printed or dyed cotton goods	58	70	85
Artificial silk yarn	34	64	66
Artificial silk mixtures	37	81	91
Woollen piecegoods	34	35	37

Belgian.—The total trade in Belgian goods rose from Rs.6·8 crores to Rs.7·5 crores and the percentage from 2·9 to 3·0. As usual, iron and steel manufactures accounted for more than half the trade. Imports of steel bars rose from Rs.84 to Rs.103 lakhs, structural steel sections from Rs.33 to Rs.62 lakhs, while plain sheets fell from Rs.38 to Rs.36 lakhs and hoops and strips from Rs.16 to Rs.13 lakhs. A striking feature of the returns has been the heavy imports of Belgian railway material, amounting to Rs.164 lakhs on Government account and Rs.59 lakhs on account of company-operated railways. This represents, in the main, very large contracts for steel sleepers which were placed by the Director-General of Stores, London, with Belgian rollers in 1926 and early 1927 at very low prices. An import of Rs.62 lakhs worth of precious stones is also noteworthy. Cheap Belgian window glass has a firm hold in this market and there is also a trade in cotton

and woollen piece-goods. In view of the importance of Antwerp as the port of shipment for the products of a large area in western Germany and northern France, it is likely that many of the items credited to Belgium in the customs returns are in fact German and French goods in transit.

Marketing Problems.—In his message to the Advertising Convention at Birmingham, H.R.H. the Prince of Wales recently stressed the importance of new and scientific methods of marketing which are demanded by modern conditions. This need for improved marketing systems lies at the heart of the British trade position in India to-day, and the crux of the matter is adequate representation. For the last ten years in these reports I have consistently emphasised the fact that the British manufacturer can no longer afford to leave the marketing of his products entirely in the hands of others but must himself take an interest in, and generally supervise the processes of, selling, propaganda and advertising until the goods actually reach the ultimate consumer. After 21 years' business and official experience in two of our greatest markets, India and China, I state with firm conviction that the marvellous industrial strength of the United Kingdom is to a large extent dissipated, and British manufacturers fail to obtain their due share of the trade of the East owing to the fact that our marketing methods are not so scientific or carefully planned having regard to the needs of each country as our methods of production. An authority recently stated with great truth that "this great nation of manufacturers must become a nation of salesmen before it can hope to compete successfully in the world's markets." There is evidence of increased attention being paid to the specific needs of India, the greatest of all our markets, by a number of the more powerful British concerns during the past few years, but correspondence with hundreds of British manufacturing firms each year shows that the great majority have not yet appreciated the changed conditions in India which tend to weaken our position and which call for revised methods and organisation in order to meet them. I make no apology, therefore, for reiterating many of the comments which have been made before, but which apply with even greater force to-day.

The number of efficient, modern selling organisations adequately covering the Indian market and making full use of present-day methods of propaganda and advertising is extraordinarily few. The distribution of cigarettes, kerosene, certain chemical products, soap and sewing machines are outstanding examples of efficient marketing. In the case of heavy machinery and plant of all kinds the manufacturers have in most cases established their own branches staffed with both commercial men and engineers. In the great majority of cases, however, British manufacturers have been content to leave the whole question of selling

and distributing methods entirely in the hands of their mercantile agents in India. They have been prone to consider that once they received payment for the goods in London their interest in them ceased. They have not realised that mercantile agents in India have, as a rule, far too many irons in the fire to give close personal attention to any one agency unless they are assisted and prompted to do so by the manufacturer.

The only solution is for the producer to take a personal interest in the market and to realise that, without the expenditure of capital and trouble, he cannot hope to have his goods adequately distributed. In a certain number of instances, where business is conducted on a large scale, a branch in India is indicated. In other cases, and particularly where a machine, appliance or article requiring special knowledge is being sold, the maker should attach his own expert to the staff of the agent, so that technical advice and service may be available on the spot. Where the manufacturer employs agents for the sale of a non-technical commodity, he should realise that it is too much to expect any local firm to undertake heavy expenditure on travelling, demonstration and propaganda work for a mere 5 per cent. commission on sales. In the case where a traveller is employed who is either resident in India, which is the more satisfactory procedure, or merely visits the country each cold weather, it should be borne in mind that a subsidy is required to cover advertising and other propaganda expenditure, including *extensive* travelling, and the manufacturer should make it his business to make sure that the territory is not too large to be adequately worked and that this subsidy is spent in the right way.

In conclusion, the manufacturer should realise that he has an interest in his goods until they reach the consumer. Unless he is prepared to put in a sales organisation himself or to insist that his agents should maintain an efficient organisation, he will run the risk of losing the trade. *The pace, in any market, is that set by the most efficient competitor.* In my report for 1919 I dealt with this question of representation at great length. In Chapter II of this report I have considered the special efforts required to meet the revolutionary change which is taking place in the procedure of purchase of Government stores, including railway requirements. Further detailed information and advice, including the names of, and particulars concerning, prospective agents can be obtained from the Indian Section of the Department of Overseas Trade, 35, Old Queen Street, London, S.W.1, where there are duplicates of the extensive records accumulated by the Trade Commissioners' Officers in Calcutta and Bombay in the course of ten years' intensive effort in the market. Finally, I would strongly advise British manufacturers, who have interests in this country, to make a cold weather visit and see for themselves the far-reaching changes which are taking place. They will then realise the paramount

need for *service,* which is appealed for on all sides, and will appreciate the dangers of complacency and the very great and sustained efforts which are imperatively required if we are to maintain our economic position in India.

The Balance of Trade.—The Controller of the Currency in his lucid report for 1927-28, on which I have very freely drawn for the ensuing comments, gives the following statement which compares India's visible balance of accounts during the year with that of the preceding year and with the averages of the five pre-war years, the five war years and the seven years immediately after the war. The detailed figures work up to a plus or minus balance (*plus* representing net export and *minus* representing net import) for each of the three main heads of classification, namely (1) private imports and exports of merchandise, (2) private imports and exports of treasure, and (3) remittances through Government, leading up to a *plus* or *minus* total for the transactions as a whole.

	Average of 5 pre-war years ending 1913-14	Average of 5 war years ending 1918-19	Average of 7 years ending 1925-26	1926-27.	1927-28.
			(In lakhs of Rupees)		
Exports of Indian merchandise (private)	+2,19,50	+2,15,98	+3,12,55	+3,01,43	+3,19,11
Re-exports of Foreign merchandise (private)	+ 4,62	+ 8,16	+ 14,59	+ 8,01	+ 9,54
Imports of Foreign merchandise (private) (*b*)	−1,45,85	−1,47,80	−2,44,49	−2,29,98 (*b*)	−2,46,78 (*b*)
Balance of Trade in Merchandise (private)	+ 78,27	+ 76,34	+ 82,65	+ 79,46	+ 81,87
Gold (private) (*a*)	− 28,86	− 7,81	− 25,49	− 19,40	− 18,10
Silver (private) (*a*)	− 7,21	− 2,99	− 13,73	− 19,79	− 13,85
Currency notes (private) (*a*)	—	—	31	− 14	− 24
Balance of Transactions in Treasure (private (*a*)	− 36,07	− 10,80	− 39,53	− 39,33	− 32,19
Total visible Balance of Trade	+ 42,20	+ 65,54	+ 43,12	+ 40,13	+ 49,68
Council bills and telegraphic transfers paid in India, purchases of sterling from banks and firms in India and payments for sterling taken over in London from local bodies	− 41,35	− 34,96	− 27,84	− 2,82	− 37,77
Sterling transfers on London sold in India	− 5	+ 5,50	+ 6,73	+ 1,93	—
Transfers of Government securities	− 87	− 38	− 27	+ 3	+ 28
Interest drafts on India in respect of Government of India securities ...	− 45	− 30	− 33	− 34	− 35
Balance of Remittances of Funds	− 42,62	− 30,14	− 21,71	− 1,20	− 37,84
Total visible Balance of Accounts	− 42	+ 35,40	+ 21,41	+ 38,93	+ 11,84

(*a*) Excludes transactions which do not enter into the balance of trade.

(*b*) Exclusive of the value of Railway materials imported direct by State Railways working under company management.

After taking into account the sum of Rs.2,95 lakhs, being the net payment in India of foreign money and postal orders and Rs.1,10 lakhs representing telegraphic transfers on India from 'Iraq, the visible balance in favour of India is reduced to Rs.7,79 lakhs, as against a corresponding figure of Rs.34,17 lakhs in the previous year. This residual amount is probably to be accounted for by various items which can only be estimated, such as private remittances, exports and imports of capital, remittances of the proceeds of shipping and insurance services, tourist expenditure, &c., &c.

Bullion Movements.—*Gold.*—The Currency Controller states that :—

" A comparison of the imports of gold since April, 1925, when *de facto* stabilisation of the rupee at 1s. 6d. (gold) took place, with the imports for the five pre-war years is interesting. In 1924-25 the imports were exceptionally large due mainly to the large drop in the price consequent upon the rise in the gold value of the rupee and the possibility that this drop in price would be temporary. This cause was operating to a certain extent in the first half of 1925-26, but thereafter the volume of imports decreased considerably, and for the years 1926-27 and 1927-28 the average net import was only 18,75 lakhs as compared with an average for the five pre-war years of 28,15 lakhs. Allowing for the fact that in pre-war years gold was valued at Rs.15 to the sovereign, the decrease in the imports during the last two years as compared with the pre-war imports is very striking and tends to confirm the view which has been expressed in the last two reports that with the growth of the investment habit in India gold imports in future are not likely to be as large as in the past.

Of the total gross imports shown in the trade returns, 8,47 lakhs came from Natal, 3,91 lakhs from the United Kingdom, 2,03 lakhs from Egypt, and 1,22 lakhs from the United States of America. The decrease of over 3 crores in imports from Natal is due to the demand of other countries, principally Argentina and Brazil, for South African gold.

In section 4 of the Indian Currency Act, 1927, obligation is laid on Government to receive at the Bombay Mint, at the rate of Rs.21-3-10 per tola fine gold, all gold in the form of bars containing not less than 40 tolas which may be presented by the public. This section came into force on 1st April, 1927, and on that date the conditions attaching to the acceptance of gold at the Bombay Mint were published. Either fine or unrefined gold may be tendered, gold of fineness less than 990 being accepted only as unrefined. All gold tendered will be melted and assayed on receipt, a charge of 2 pies per tola being made for melting and assaying fine gold with a minimum charge of Rs. 12. Payment of not more than 95 per cent. of the value of the gold tendered will be made on receipt of the gold if the Master of the Mint is satisfied that a preliminary certificate should be issued. As the rupee-sterling exchange did not reach the upper gold point in the course of the year no gold was tendered at the Mint.

By the same Act, sovereigns and half-sovereigns ceased to be legal tender in India, but an obligation was placed on Government to receive these coins at all Currency Offices and treasuries at their bullion value, reckoned at Rs.21-3-10 per tola of fine gold, *i.e.*, Rs.13-5-4 per full weight sovereign. The value of the sovereigns received by Government at this rate during the year was only Rs.5,034. In spite of the fact that these coins have ceased to be legal tender the value of the imports increased from 5,64 lakhs to 6,71 lakhs."

Silver.—The highest price recorded in London during the year was $26\frac{15}{16}d.$ per standard ounce in November, 1927, while the lowest

quotation was 25*d.* in September, 1927. The silver market during the year presented few outstanding points of interest and the price fluctuated within very narrow limits. India's demand for silver decreased considerably during the year. Of the total gross imports amounting to Rs.16,44 lakhs, silver of the value of Rs.6,87 lakhs was obtained from the United States and Rs.5,71 lakhs from the United Kingdom, as compared with Rs.4,90 lakhs and Rs.12,00 lakhs in the preceding year. There was a net export of about 1 crore of rupees to China.

The Course of Exchange.—Telegraphic transfers on London fluctuated between 1/6$\frac{3}{32}$ in December, 1927, and January, 1928, and 1/5$\frac{15}{16}$ in April, May and August, 1927. The Controller states that :—

" At the end of March, 1927, exchange was dull and quiet with a tendency to weakness due to slackness in the export trade and demands for sterling on bullion account. This tendency continued during April and was emphasised temporarily towards the end of the month by the inauguration by Government of the system of purchase of sterling in India by tender. The uneasiness caused by this new departure, however, was transient, and in the second week of May the appearance of export bills in Calcutta, Bombay and Karachi caused the rate to rise from 1/5$\frac{15}{16}$d. to 1/5$\frac{15}{16}$d. The acceptance of tenders by Government at 1/5$\frac{15}{16}$d. prevented any further rise in the market during this month, and early in June the market became slightly weaker owing to the ease of money and comparatively small export demand. Conditions continued to be quiet and the market rate remained in the neighbourhood of 1/5$\frac{7}{8}$d. until the beginning of September when the demand for money for financing the jute crop and export bills in Calcutta produced a much firmer tone. On the 30th August Government refused to accept tenders at 1/5$\frac{7}{8}$d. On the 7th September the full amount of £500,000 offered for tender by Government was allotted at 1/5$\frac{15}{16}$d. and Government announced an offer of £1 million for the following week. This amount was allotted at 1/5$\frac{31}{32}$d. on the 15th September and it seemed likely that exchange would remain firm with a rising tendency. The amount offered for tender on the 21st September was, therefore, increased to £2 millions, but this large increase was taken by the market to mean that Government did not desire to see the rate of exchange rise appreciably and at the same juncture money suddenly became much easier. The result was a weakening of exchange, and by the first week in October the rate had again fallen to 1/5$\frac{29}{32}$d. Towards the end of the month a revival in the export demand produced a firmer tone and exchange remained steady in the neighbourhood of 1/5$\frac{15}{16}$d. till the last week in November, Government purchasing a considerable amount of sterling each week at 1/5$\frac{31}{32}$d. In the latter half of November the demand for money usual at the beginning of the busy season began to make its influence felt, while export bills appeared in Calcutta in increasing quantities. In consequence the market rate of exchange rose to 1/6d. on the 26th November and, in spite of large purchases of sterling by Government, continued to move upwards until it reached 1/6$\frac{3}{32}$d. about the middle of December. At the beginning of January it fell to 1/6$\frac{1}{16}$d. but remained very firm at this rate until the end of the month when weakness developed, and there was a drop of $\frac{1}{32}$. On the 1st February Government, who had not accepted tenders at less than 1/6$\frac{3}{32}$d. since the middle of December, decided to follow the market and accepted tenders at 1/6$\frac{1}{16}$d. This action of Government emphasised the weakness of the market, and during the subsequent week the rate fell to 1/6d. On the 8th February Government, still following the market, accepted tenders at 1/6d. and on the following day the market rate dropped to 1/5$\frac{15}{16}$d. During the next three weeks Government

indicated by their refusal of tenders at 1/5$\frac{31}{32}$d. that they were not prepared to purchase at less than 1/6d., and although the market was very dull, the rate remained at 1/5$\frac{15}{16}$d. as banks were not inclined to let it go very far below the Government buying rate. In the first week of March exchange began to strengthen again owing to considerable exports of seeds and cotton, and during this month it remained firm at 1/5$\frac{31}{32}$d., Government making considerable purchases each week at 1/6d."

Money Market Conditions in India during the Year.— The Controller states that :—

" At the end of March, 1927, the bank rate stood at 7 per cent. and the cash balance of the Imperial Bank showed signs of increasing rapidly. During April the currency was contracted by Rs.10,33 lakhs of which Rs.8,33 was against rupee and sterling Government securities and Rs.2,00 lakhs against internal bills of exchange, but in spite of these large withdrawals of currency the cash balance of the Imperial Bank decreased by less than 3½ crores during the month. Money was in good demand in Bombay for financing the Broach cotton crop, the rate for call money being 6½ to 6¾ per cent., but towards the end of the month rates became easier in Calcutta. In May there was a distinct decrease in the demand for money, especially in Calcutta, but the cash balance of the Imperial Bank decreased slightly mainly on account of a further contraction of 2 crores by Government, and it was necessary to retain the bank rate at 7 per cent. until the 2nd June, when it was reduced to 6 per cent. During June money returned rapidly to the financial centres ; the bank rate was reduced to 5 per cent. on the 23rd of the month, and at the end of the month money had become very easy. During July conditions continued to be easy ; the bank rate was reduced to 4 per cent. on the 28th of the month, and at the end of the month call money was available in Calcutta at 1½ per cent. in spite of the issue of the Government loan in the latter half of the month. Money remained very easy during August in spite of the issue by Government of 4 crores of treasury bills, but at the beginning of September the demand on account of the financing of the jute crop temporarily tightened up the market and the bank rate was raised from 4 to 5 per cent. on the 8th September. The intensity of the demand for financing jute, however, soon abated, and before the end of the month conditions were again very easy with the rate for call money at 1½ to 2 per cent. These conditions continued during October and November in spite of the issue by Government of 1½ crores of treasury bills each week. During November, however, a decrease in the cash balance of the Imperial Bank indicated the approach of the busy season and in December conditions changed rapidly. The bank rate was raised from 5 to 6 per cent. on the 8th December and to 7 per cent. on the 22nd December, the currency having been expanded by 4 crores against internal bills of exchange during the interval. On the 29th December the currency was expanded by 2 crores against British treasury bills, but in spite of this expansion the cash balance of the Imperial Bank had fallen to just under 11 crores by the end of the month. The market rates for money did not at once reflect the rise in the bank rate, mainly because heavy purchases of sterling by Government maintained the floating supply of credit. In January, however, these purchases decreased, and by the end of the month the market rates for money were more in accordance with the bank rate, the rate for call money being about 6 per cent. Meanwhile, the currency had been expanded by a further 6 crores, 1 crore against rupee securities, 1 crore against sterling securities, and 4 crores against internal bills of exchange, and at the end of the month the cash balance of the Imperial Bank was about 13½ crores. For the remainder of the year money continued tight, the rate for call money in Bombay varying between 6 and 6½ per cent, but owing to large repayments of treasury bills by Government there was no stringency. At the end of March the cash balance of the Imperial Bank had been reduced

to 11,67 lakhs, mainly on account of a net contraction of 1,67 lakhs, of which 67 lakhs was against British treasury bills and 1 crore against internal bills of exchange."

The Clearing House statistics for the year showed a total of 16,74 crores, as compared with 16,09 crores in 1926-27 and 16,88 crores in 1925-26. The Controller states that the outstanding feature of the year 1927-28 was the large increase in the Calcutta clearing statistics, due to the prosperity of the tea and jute industries.

The Public Debt.—The following table, abstracted from the Currency Report, shows the total debt of the Government of India, including Indian treasury bills issued to the Paper Currency Reserve, at the end of each of the last three years. The figures for 1927-28 are approximate, as the accounts for that year have not yet been closed :—

	31st March, 1926 Rs. (lakhs).	31st March, 1927 Rs. (lakhs).	31st March, 1928 Rs. (lakhs).
In India.			
Funded Debt.			
Rupee Loans	3,68,29	3,74,44	3,72,30
Treasury Bills with the public ...	—	—	7,60
Treasury Bills in the Paper Currency Reserve	49,65	41,47	31,94
Total	4,17,94	4,15,91	4,11,84
Unfunded Debt.			
Post Office Savings Bank	27,23	29,51	32,00
Post Office Cash Certificates ...	20,97	26,68	30,71
Balances of Provident and allied funds	46,39	51,02	55,67
Total	94,59	1,07,21	1,18,38
Total India	5,12,53	5,23,12	5,30,22
In England at 1s. 6d. to the Rupee.			
Funded Debt.			
Sterling loans	3,55,13	3,53,45	3,62,24
Unpaid balance of India's war contribution	24,43	23,74	23,02
Capital value of liabilities undergoing redemption by way of terminable annuities	76,71	74,92	73,06
Total	4,56,27	4,52,11	4,58,32
Unfunded Debt.			
Balances of Provident and allied funds	28	36	25
Total England ...	4,56,55	4,52,47	4,58,57
TOTAL DEBT ...	9,69,08	9,75,59	9,88,79

The subjoined table shows the distribution of the debt :—

Distribution.	31st March, 1926 Rs. (lakhs).	31st March, 1927 Rs. (lakhs).	31st March, 1928 Rs. (lakhs).
Productive Debt—			
Railways	6,06,46	6,36,32	6,68,99
Posts and Telegraphs	12,87	13,38	13,96
Irrigation	3,44	3,44	3,61
Salt	81	85	88
Vizagapatam Port	65	97	1,35
Security Printing	—	52	60
Total Productive Debt ...	6,24,23	6,55,48	6,89,39
Unproductive Debt of Central Government	2,30,25	1,99,94	1,73,06
Incurred on Account of the Provincial Loans Fund ...	1,14,60	1,20,17	1,26,34
Total	9,69,08	9,75,59	9,88,79

The total productive debt of the Government of India increased during the year 1927-28 by 33,91 crores, due almost entirely to capital expenditure on railway development, while the unproductive debt decreased by 26,88 crores. The internal debt, excluding the Provincial Government's debts to the Government of India, increased from 4,02,95 crores on the 31st March, 1927, to 4,03,88 crores on the 31st March, 1928. There was an increase of about 11 crores in the unfunded debt, due mainly to the sale of post office cash certificates and an increase in the balances of provident and allied funds, while there was a decrease of about 4 crores in the funded debt. Owing to the issue of the sterling loan, which will be referred to later, the external debt increased by 6,1 crores.

In the railways and irrigation projects, India possesses two very fine investments which should show increasing returns and a growing contribution to the relief of taxation.

The Year's Loans.—The Controller describes Government's public borrowings during the year as follows :—

The Rupee Loan was a 4 per cent. tax-bearing issue repayable at par on or after the 1st August, 1934, at three months' notice. The issue price was Rs.94/8/- per cent., giving a yield of nearly 5 per cent. inclusive of premium on redemption, assuming repayment in 1934 and about 4¾ per cent. if repaid in 1937. Subscriptions to the loan were payable in cash, in 6 per cent. bonds 1927, or in 5½ per cent. war bonds 1928. In exchange for each Rs.100 of 6 per cent. bonds 1927 and 5½ per cent. war bonds 1928, tenderers were given Rs.100 of the new loan and a cash bonus of Rs.6/4/- and Rs.12/- respectively. The loan was open from the 18th July to the 30th July. The total amount of the subscriptions for the loan was Rs.19,53,79,100, of which Rs.7,20,39,200 were by tender of the 1927 bonds and Rs.4,12,25,700 by tender of 1928 bonds. The comparatively poor response to the Government offer was due mainly to the apprehension of early stringency in the money market following upon the heavy contractions of the currency earlier in the year and the fear of a consequent depreciation in the price of Government securities.

Sterling Loan. In January, 1928, a sterling loan was issued in London to provide funds for capital expenditure on Indian railways and to repay £5 million Indian Bills maturing on the 29th of that month. The loan took the form of £7½ million 4½ per cent. Stock issued at £91/10/- per cent., redeemable at par at the latest on the 1st June, 1968, the Secretary of State for India reserving to himself the right to give three calendar months' notice to redeem the loan at par on the 1st June, 1958, or on any half-yearly interest date thereafter. The loan was fully subscribed on the day it opened.

Prices of Rupee Securities.—During the year the progressive rise in the price of Government securities, which had been a feature of the last few years, was checked partly by the contraction of the currency during the first three months of the year and partly by the issue of treasury bills from August onwards. India's credit, however, both in the country itself and in London, has improved remarkably during recent years as the following figures, quoted by the Hon. the Finance Member in his last budget speech, clearly show :—

	Market price on—											
	1st Feb., 1923		1st Feb., 1924		1st Feb., 1925		1st Feb., 1926		1st Feb., 1927		1st Feb., 1928	
	Rs.	As.	Rs.	As.	Rs.	As.	Rs.	As.	Rs.	As.	Rs.	As.
5 per cent. Tax-free Loan, 1945-55 ...	88	4	96	10	97	15	100	12	107	5	106	10
3½ per cent. Indian Government Rupee Loan	57	0	66	0	66	9	70	8	77	7	75	15

The next table compares the prices of India stock and other stock in London on various dates, and clearly shows that the credit of the Government of India now stands considerably higher in the London market in relation to the British Government and other gilt-edged borrowers than it did in 1914 :—

	30th Apr., 1914	30th Apr., 1923	1st Feb., 1926	1st Feb., 1927	31st Dec., 1927
	£	£	£	£	£
India 3 per cent. loan ...	75¼	60¼	58	59⅜	62¾
India 3½ ,, ,, ...	88¼	70¼	68	70⅜	72¾
Local Loans 3 per cent. stock ...	87	69⅛	64¼	63⅞	65
London County Council—					
3½ per cent. stock	97	79⅞	73	74½	73⅛
3 ,, ,, ...	81	68½	63	64	63¾

As the Hon. Sir Basil Blackett stated in his budget address on the 29th February, 1928 :—

" Last year I commented on the fact that the disparity between the prices of India 3½ per cent. rupee stock and India 3½ per cent. sterling stock was leading to very considerable transfers of money from India to London in order to take advantage of the higher yield of the sterling stock. This process has been continuing to a not inconsiderable extent, though checked by the final stabilisation of the rupee on a gold basis. It is significant that the disparity is much less now than it was last year. Nevertheless, the necessity for an external loan was partly due to the effects of this transfer of capital away from India, and if public and private transactions be taken together, I have little doubt that, in spite of the issue of a sterling loan of £7½ million in 1927-28, the

net amount of India's external indebtedness has been considerably decreased and not increased in the course of the last year. The increase during the year in our external indebtedness as a Government is considerably less than the amount of the sterling loan and the sterling debt is only £3⅓ million more than it was three years ago. During 1927-28 our total indebtedness has increased by 16 crores while our deadweight debt has decreased by 22 crores.

In the five years since the 31st March, 1923, when the era of deficits came to an end, the aggregate debt has increased by 1,13 crores, the productive debt has increased by as much as 1,89 crores, and the unproductive portion has been reduced by 76 crores. By the end of 1928-29 we hope to have just about liquidated the debt due to the five years of revenue deficits from 1918-19 to 1922-23, and if the recent rate of progress is continued, our unproductive debt should vanish altogether in about twelve years time."

The Budget, 1928-29.—In former reports will be found an account of the difficult period in India's finances between 1918-19 and 1922-23, during which deficits amounting to more than 98 crores of rupees had to be provided for. As a result of stringent economies, increased taxation and prudent finance, the tide turned in the year 1923-24 when a small surplus was realised. Since that year, thanks to a succession of good monsoons and the adoption of a cautious yet far-sighted financial policy, small surpluses have been the rule. In my report for 1926-27 I stated that the 1926-27 surplus of 3·10 crores would be reduced to 2·82 crores by the special remission of 28 lakhs of the Bombay Government's contribution for 1926-27, and that this sum of 2·82 crores would then be transferred in its entirety to a special reserve so that the revised estimate for 1926-27 would not exhibit either a revenue surplus or a deficit. The 1927-28 surplus of 3·64 crores would be supplemented by such a sum as might be required to be transferred from the special reserve in order that the out-turn of the year 1927-28 might also show neither a deficit nor a surplus. The revised estimates for the year 1927-28, like the original budget show neither a surplus nor a deficit. They indicate a total expenditure of 127·74 crores and a total revenue of the same figure including a special appropriation of 1,69 lakhs from the Fund. Exclusive of this last item, the variation in the net result amounted to only 3 lakhs, a tribute to the accuracy of the Finance Department's budgetting.

The Hon. the Finance Member, in introducing the budget for 1928-29, stated that the aggregate revenue was estimated at 1,32·23 crores and the expenditure at 1,29·60 crores, giving an estimated surplus of 2·63 crores. This surplus was all the more gratifying in view of the fact that the Government of India had sacrificed nearly a crore of customs revenue in the summer of 1927 by placing machinery and cotton mill stores on the free import list in order to assist the depressed Indian cotton industry. Before considering the disposal of the surplus, however, it was necessary to consider the accumulated liability in respect of the bonus on cash certificates. Cash

certificates of the nominal value of 40 crores were outstanding on 31st March, 1928, and it was estimated that the accrued but undischarged liability for bonus would stand at about 5½ crores on October 1st, 1928. Fifty lakhs had been included in the budget as the estimate of the actual payments of bonus, but the Finance Member pointed out that, as soon as the revenue position permitted it, Government would have to consider setting aside considerable sums from revenue in a separate fund in order to enable them to meet the full liability when called upon to do so. This contingency, however, need not deter them from utilising the surplus disclosed in the budget as a recurrent surplus. The Government of India accordingly proposed that 2,58 lakhs of the surplus should be applied to the final extinction of the provincial contributions, leaving a small surplus of 5 lakhs in the budget.

The budget imposed no new taxation nor did it provide for any remissions of taxation. In concluding the speech introducing the final budget of his most successful term of office, Sir Basil Blackett said :—

" Intrinsically, the financial position of the Government of India seems to me to be sound and prosperous. From 1929-30 onwards, it will be the privilege of this House and of my friend and successor, Sir George Schuster, to find no outside claimant to the recurring surpluses which I hope it will be their good fortune to enjoy in the coming years, and they will be free to turn their minds on the one hand to new directions in which money can be usefully laid out for India's advancement, and on the other hand to the re-adjustment of the burden of taxation and to those reductions of taxation, so welcome to tax-gatherer and taxpayer alike, which, apart from some minor cases and with the one big exception of the Cotton Excise Duty, have been beyond our reach in my term of office."

The Railway Budget.—The Hon. Member for Commerce and Railways, in reviewing a most successful year for 1927-28, stated that the total receipts on the commercial lines were Rs.103½ crores, which was nearly Rs.5 crores higher than the total for the previous year. The total expenditure at Rs.90⅔ crores was higher by Rs.1¼ crores, but this increase was more than accounted for by the fact that interest charges had risen by Rs.1½ crores owing to the capital expenditure incurred during the year. The surplus of receipts over expenditure on the commercial lines was Rs.12¾ crores, as against about Rs.9 crores in 1926-27 and in the budget. Out of this surplus the loss on the strategic railways absorbed Rs.1⅔ crores and of the balance Rs.4¾ crores, under the operation of the convention, would go to the railway reserve fund, leaving Rs.6⅓ crores as the contribution to general revenues.

In view of this greatly improved financial position Sir George Rainy announced a series of material reductions in third-class passenger fares on the East Indian, North Western and G.I.P Railways, in the rates for parcels and luggage and in certain goods rates which would particularly benefit the poorer class and the

agriculturists. So far as the budget figures for 1928-29 are concerned, the Hon. Member stated that :—

" But for the reductions in rates and fares which we propose, we should have budgetted for an increase of Rs.1½ crores in the gross traffic receipts, the two basic assumptions being (1) a normal monsoon, and (2) a further growth in traffic but at a slower rate than in the current year. In view of the reductions in rates and fares we anticipate a fall of Rs.55 lakhs in the traffic earnings, but owing to the increase in the interest on the balances of the reserve and depreciation funds, our total receipts are expected to be only Rs.24 lakhs lower. On the expenditure side, working expenses are put at the same figure as in the previous year, making the fourth successive year in which they have stood at about Rs.62½ crores notwithstanding the extension of our lines and the increase in the traffic with which we have to deal. During the period the expenditure on depreciation (which is governed automatically by the amount of the capital at charge) will have risen from Rs.10¼ crores to Rs.11½ crores, which means that the other working expenses will have fallen by Rs.1¼ crores. This is a very satisfactory result and bears eloquent testimony to the resolute and continuous efforts of the Railway Board to secure economical administration. Operation expenses will, we anticipate, be about the same as in the current year, the increase in traffic very nearly offsetting a saving of Rs.15 lakhs we expect in our fuel bill. Under repairs and maintenance, taking warning by this year's lesson, we are budgetting for a reduction of Rs.63 lakhs, and this estimate, I may say, is the result of a very close examination of the number of locomotives, carriages and wagons likely to be repaired, and takes full account of the fact that on most of the principal railways there are little or no arrears to be made good. We hope also that the progressive modernisation of our workshops will again bring down the average cost of repairs.

Interest charges, owing to our new capital expenditure, will be higher by Rs.1½ crores, and the surplus profits of companies by a quarter of a crore. The latter increase, however, is due to special causes and will not recur. It is occasioned by the fact that on the 1st of January, 1929, our contract with the Burma Railways Company will expire, and the line will come under State management. It will be necessary, therefore, during the year to pay to the Company not only the suprlus profits of the current year, but also those of the first nine months of 1928-29.

Our total receipts for the year we put at a little over Rs.103 crores, and the total charges (including the loss on the strategic railways) at Rs.94 crores, leaving a final surplus of about Rs.9 crores, of which general revenues will take Rs.5½ crores and the railway reserve funds Rs.3½ crores."

New Railway Construction.— In my last report I stated that the provision made in the 1927-28 budget was for 48 lines covering 1,813 miles which are already in progress and 51 new lines extending to 2,827 miles, giving a total programme of 4,640 miles. I stated that each railway administration was charged with the duty of exploring every avenue that afforded scope for the construction of remunerative lines of a standard suitable to the traffic that might be expected. In order to facilitate the achievement of this object, it is not proposed to adhere to one rigid standard of construction. The Railway Board have laid down varying standards of construction in order that branch lines and extensions may be built to whatever standard seems most suitable to the area to be served.

During the past year 636 miles of new line were opened, and it is expected that a further 800 miles will be opened to traffic in

1928-29. Of the new lines which are already in progress it is expected to open within the present year the Daltonganj-Barkakhana section of the Central India Coalfields Railway, the Villupuram-Trichinopoly and the Dindigul-Pollachi lines in south India and a part, at least, of the Kangra Valley lines in the Punjab. A number of short branches on the Assam-Bengal and eastern Bengal systems are also likely to be opened during the year. Other projects of major importance, which are in hand but will not progress quickly enough to be opened next year are the Calcutta Chord Railway including the bridge over the Hooghly at Bally, the Lucknow-Sultanpur-Jaunpur, the Chiniot-Khushab cross connection in the Punjab, the Kalabagh bridge at Mari Indus, the Raipur-Vizianagram, the Sagaing bridge and Minbu-Pakokku project in Burma, both sanctioned during the past year, and the Trichinopoly-Manamadura Chord Line in south India. As the Hon. Member for Railways stated in introducing the railway budget :—

" The lines which will still be under construction at the end of the year are mostly short branches or feeder lines to the main system, but in various parts of the country there are special features. Thus, in Burma and Assam, pioneer lines are being constructed to open out rich but undeveloped country. In Southern India the branches will serve densely populated tracts where the traffic should at a very early date yield an ample return on the capital invested. In the Punjab they are for the most part cross connections running from East to West and linking up the existing lines, most of which run from North to South ; while in Sind we hope to commence the feeder lines which are the natural consequence of the construction of the Sukkur Barrage."

Further detailed information with regard to the allotments of capital by each separate railway for new constructions and other works can be obtained from the Indian Section, Department of Overseas Trade, 35, Old Queen Street, London, S.W.1.

The Reserve Bank Bill.—Any report dealing with events during 1927-28 would be incomplete without some mention of the Bill, which was introduced by the Government of India for the creation of a Reserve Bank of India which would take over the control of currency and credit and effect far-reaching reforms in the monetary and banking machinery of the country. As a result of strong opposition, based largely on political considerations, from a section of the Assembly, the Government on February 10th, 1928, withdrew the Bill and, in his speech on that occasion, the Hon. Sir Basil Blackett stated :—

" Government must take it that the House prefers to continue the existing currency system and the existing machinery and methods of control of Indian currency and credit which, though frequently criticised by some of those who have been most active in opposing this measure, have given signal proof of their efficiency and value in securing stable monetary conditions for India during the period which has elapsed since the passing of the Currency Act of 1927 and, in the absence of a more effective demand for a change, the Government do not now propose themselves to take any further steps with a view to the introduction of the reform which the Reserve Bank Bill was designed to bring about."

Security Printing in India.—The new Security Press of the Government of India at Nasik Road, Bombay Presidency, which has been largely created by, and is in charge of, Lt.-Col. Sir George H. Willis, C.I.E., R.E., was officially inaugurated by the Hon. Sir Bhupendra Nath Mitra, K.C.S.I., Finance Member, on April 14th, 1928. On that occasion Government issued the following statement of the plant, equipment and estimated output :—

" Prior to 1860 there were no Government of India currency notes, and up till 1862 the Indian Postage Stamps were printed by the Survey of India from plates made at the Calcutta Mint.

In 1861 the Bank of England printed the first currency notes for India, and they were issued for the first time in March, 1862. The Bank has continued to print them from that date up to the present.

In 1862 also Messrs. Thos. De la Rue & Company first printed postage stamps for India, and they continued to hold the contract for this work until 1924. It was in view of the impending termination of this contract that the Government of India decided to provide for the printing of stamps in India, and later when the Bank of England contract neared expiry to print the Currency Notes also in this country.

As a result of their decisions printing works have been established at Nasik Road for producing all the security documents, *i.e.*, documents representing money value, required by the Currency Department, the Posts and Telegraphs, the Law Courts and the Taxing departments of the Central and Provincial Governments.

Nasik Road was selected as the site of the Presses on account of its climate, which is not subject to sudden and large changes of humidity and temperature, and also of its position on a main line giving direct communication to all parts of India.

The press for the production of stamps, postal and fiscal, and postal stationery, post cards and embossed envelopes was taken in hand after a demonstration had been given in Delhi in 1923 of the feasibility of carrying out the work in India. The ground was first opened in September, 1924, and the first printing took place in November, 1925.

The buildings, including quarters for the staff, cost just over Rs.18 lakhs, while the printing machinery and equipment accounted for a little more than Rs.8 lakhs, and the balance of nearly Rs.2 lakhs covered the electric power equipment, water supply, drainage, railway siding and the cost of the land, making a total cost of a little less than Rs.27½ lakhs in all. A Central Stamp Store for the whole of India has since been added at a cost of Rs.8½ lakhs.

The Currency note press was undertaken somewhat earlier than had been anticipated as the Bank of England expressed a desire to terminate the major part of the contract before its legal date of determination. It was found possible to meet the wishes of the Bank, and the buildings were therefore begun in August, 1926. They are now completed together with the quarters of the personnel at a cost of Rs.20 lakhs. During this period the machinery and equipment were installed at a cost of Rs.6 lakhs. The plant provides not only for the printing of 1½ million currency notes daily, but for the preparation of the plates and for new designs when required.

The following approximate figures for both the presses will convey some idea of the scope of the work :—

Currency Note Printing.			*Security Printing.* *India and Central Stamp Store.*		
Currency notes—			Stamps, postal and fiscal, postcards, etc.—		
Rs.26 lakhs	...	Total capital cost	...	Rs.36 lakhs.	
Rs.8 lakhs	...	Annual cost of paper	...	Rs.12 lakhs.	
1½ million notes (all values)	Daily outturn	Single postcards	...	10,50,000	
		Reply post-cards	...	2,70,000	
		Embossed envelopes et alia		4,00,000	
25 tons	...	Weekly outturn	...	60	tons
275	...	Number of employees		600	
Working hours per week				47½	

Indian Joint Stock Companies in 1927-28.—*Flotations.*—Although the number of registrations has increased, the aggregate authorised capital shows a further reduction on the figure for the previous year, the index number falling from 29 to 24. Indian investors have not yet recovered confidence in local industrial enterprises since the great slump in 1921-22. The following statement shows the trend of registration in recent years:—

Year.	Companies registered.		Aggregate authorised capital.		Average authorised capital per company.
	Number	Index number (pre-war year=100)	Amount.	Index number (pre-war year=100)	
			Rs.000's omitted.		Rs.000's omitted.
1913-14 (pre-war)	356	100	66,91,53	100	18,79
1921-22 ...	717	201	80,83,75	121	11,27
1922-23 ...	496	139	34,41,77	51	6,94
1923-24 ...	430	124	26,49,78	40	6,18
1924-25 ...	416	115	21,23,25	31	5,09
1925-26 ...	470	133	30,00,58	45	6,34
1926-27 ...	537	151	19,13,90	29	3,56
1927-28 ...	595	167	15,82,37	24	2,66

The amount of authorised capital is a very poor guide to the actual state of affairs, as in the great majority of Indian concerns the paid-up capital is only a small fraction of the authorised capital and companies in India go to allotment on very small subscriptions. During the past year increases in the authorised capital were noticeable under the heads of navigation, cotton and jute mills, tea gardens, coal mines and sugar factories. There were, on the other hand, decreases under banking, loan, investment and trust and most manufacturing enterprises.

Liquidations.—325 companies, with an authorised capital of Rs.24,14 lakhs, having ceased work, went into liquidation or were finally dissolved during the year 1927-28.

Indian Working Class Cost of Living Index. Bombay.—This index figure, which is compiled by the Labour Office of the Bombay Government, has fluctuated during the year between 57 and 45 per cent. above the rates ruling in July, 1914, the tendency, however, particularly during the latter half of the fiscal year, being steadily downwards. It stood at 55 per cent. on March 31st, 1927, and at 45 per cent. on March 31st, 1928. The articles included in the index are cereals, pulses, other articles of food, fuel and lighting, clothing and house rent. The articles have been given the relative importance which each bears to the total all-India aggregate expenditure. No allowance is made for any change in the standard of living since July, 1914. The fluctuations during the past seven years are shown in the following table:—

(All items: percentage increase over July, 1914).

	1921 Per cent.	1922 Per cent.	1923 Per cent.	1924 Per cent.	1925 Per cent.	1926 Per cent.	1927 Per cent.	1928 Per cent.
January	69	73	56	59	57	55	56	54
February	62	65	55	56	57	54	55	48
March	60	65	54	54	59	55	55	45
April	60	62	56	50	58	53	53	44
May	67	63	53	50	56	53	52	47
June	73	63	52	53	54	55	54	46
July	77	65	53	57	57	57	56	47
August	80	64	54	61	52	55	57	46
September ...	85	65	54	61	51	55	54	45
October	83	62	52	61	53	55	51	—
November ...	82	60	53	61	53	54	50	—
December ...	79	61	57	60	55	56	51	—
Yearly average	73	64	54	57	55	55	54	—

Patents and Designs.—In his report for the calendar year 1927, the Controller of Patents and Designs states that, in all, 1,052 applications for patents were filed during 1927, as compared with 894 applications in 1926. Of these 1,052 applications 810 came from abroad and 242 originated in India, 115 of them bearing Indian names. The majority of the inventions were concerned with railways, agriculture, textiles or electrical apparatus. There were five applications relating to a novel process for the electrical deposition of india-rubber. The attention of Indian investors was directed mainly to irrigation, tea, tennis and other games, motor car improvements, railway signalling and permanent way construction.

As regards designs, 6,190 applications for registration were filed in 1927, as compared with 5,828 in 1926. An increase was noticeable in the number of designs from Indian proprietors, especially in classes 13-15.

Printed copies of accepted specifications are distributed to 26 centres throughout India and to Patent Offices in London and

Washington, where these and other publications of the Indian Patent Office may be seen free of charge. Copies of about 14,000 specifications can be obtained at a uniform price of Rs.1/- each on application to the Indian Patent Office, 1, Council House Street, Calcutta. Specifications and other publications of the British Patent Office are also available for inspection in Calcutta, at the Record Office, Bombay, and at the Office of the Director of Industries, Madras.

Civil Aviation.—I am indebted to Lt.-Col. F. C. Shelmerdine, O.B.E., Director of Civil Aviation in India, for the following summary of the principal developments of the year :—

" The year 1927-28 has not witnessed any very great advance in civil aviation in India, and it has not yet been possible to open any regular air route. A good deal of spade work has, however, been accomplished, and there are actually more civil aircraft operating in India than has been the case before. The following is an outline of the progress made during the year :—

1. *Karachi.* Aeroplane hangar erected and Tarmac aprons and running up platforms provided. Meteorological Office and clerks' quarters erected. Mooring tower for airships purchased from Air Ministry, and provision made for erection.

2. *Gaya.* Land acquired for civil aerodrome.

3. *Dum Dum (Calcutta).* Work of raising the aerodrome to render it available for use throughout the year put in hand.

4. *Bombay.* Site for civil aerodrome selected.

5. Calcutta-Rangoon Route surveyed by land and from the air.

6. One scholarship awarded to an Indian youth for three years' training in civil aviation in England.

Provision has been made in the budget for 1928-29, for the following projects :—

1. Continuation of work on Dum Dum aerodrome, Calcutta.

2. Preparation of aerodrome at Gaya.

3. Subsidies for 4 light aeroplane clubs which, it is hoped, will start flying in September.

4. Subsidy for the Aero Club of India and Burma.

5. Scholarships for four Indians for training in Civil Aviation.

During the period under review, a considerable amount of survey work has been carried out by the Air Survey Company in Bengal, and air taxi work by the Bengal Air Transport Company in Bengal and Assam. It is hoped that next year it will be possible to proceed with the ground organisation required for the operation of the Calcutta-Rangoon route, and there is reason to hope that the Cairo-Basra air service operated by Imperial Airways Ltd. will be extended to India in the spring of 1929.

The airship shed at Karachi is approaching completion, but it is not anticipated that trial flights to India will be undertaken until 1929.

The following table gives details of flights to and across India during the period under review :—

Nationality.	Route.	Machines.	Engine(s).	Pilots.	Remarks.
British ...	India to England ...	D.H.9	Siddeley " Puma "	Flight-Lieut. J. J. C. Cocks, R.A.F., and Mechanic	Left Karachi on the 19th May, 1927, but nothing heard of him after he left Konieh for Constantinople on the 26th May, 1927, in spite of all efforts and enquiries made by the local authorities.
Dutch ...	Return flight from Batavia to Holland	Fokker F. VII (Monoplane)	Bristol " Jupiter VI" 425 h.p.	Messrs. Geysendorffer and Scholte	Mr. Van Learblack (American). The flight left Karachi on the 14th July, 1927, en route to Amsterdam
British ...	United Kingdom to Australia	D.H. 60 " Moth " ...	Cirrus Mark II. ...	Mr. D. M. Rooke ...	After carrying out repairs to his machine at Karachi, he continued his flight on the 19th July. While taking off at Aurangabad on the 4th August his machine crashed into a palm tree and fell to the ground. The pilot was injured and the machine damaged. The flight was subsequently abandoned.
French ...	France to Indo-China and return	Potaz XXV (Military)	Lorraine Dietrich 450 h.p.	Capt. Challe ...	Completed outward journey in 10 days, and carried a mechanic as passenger.
Dutch ...	Holland to Batavia and return.	Fokker F VII a ...	185 h.p. Armstrong Siddeley Lynx (3)	Messrs. G. A. Koppen and G. M. H. Frijns	Carried a passenger and mechanic. Outward flight from Amsterdam to Batavia completed in 10 days. Return journey completed in 12 days.

1927-28—*continued.*

Nationality.	Route.	Machines.	Engine(s).	Pilots.	Remarks.
British ...	England to Australia	Avro Avian "Red Rose."	Cirrus Mark II. ...	Flying Officer W. N. Lancaster	Carried Mrs. J. M. Miller as passenger. Forced to land in a paddy field at Dawbon across the Pazundaung Creek not far from the sea-plane base at Monkey Point, Rangoon, due to the breaking of a piston rod of the engine. When taking off at Muntok in the Dutch Indies, the machine crashed and was badly damaged. Pilot and passenger were both injured. The machine was repaired and the flight to Australia completed.
German ...	Germany to the Far East across India	"Germania" (Biplane)	—	Herr Koennecke, and Herr Herrmann	Damaged his machine when forced landing at Etawah, and delayed on account of repairs. Flight abandoned at Calcutta.
British ...	United Kingdom to the Far East and Australia	Supermarine Southampton Flying Boats	450 h.p. Napier Lion (2)	Royal Air Force ...	These boats set out on a leisurely 25,000 mile cruise to the Far East and Australia. Lt.-Col. F. C. Shelmerdine, Director of Civil Aviation in India, travelled as a passenger in one of the boats between Calcutta and Rangoon, and was thus given an opportunity of surveying from the air the proposed Calcutta-Rangoon air route.

1927-28—*continued.*

Nationality.	Route.	Machines.	Engine(s).	Pilots.	Remarks.
British ...	England to India (non-stop)	Fokker F. VII. (Monoplane) "Princess Zenia"	Bristol Jupiter ...	Capt. McIntosh and Mr. B. Hinkler	Forced to land near Podhajoe in South Poland owing to severe weather conditions, having flown about 2,800 miles in 24 hours. On return flight to London, again forced to land at Mazana, near Lemberg, seriously damaging the machine.
British ...	England to Australia	Avro Avian ...	Cirrus Mark II. ...	Mr. B. Hinkler ...	Distance from England to Australia covered in 16 days thus beating the record held by Sir Keith Smith, who in 1919 covered the flight in 28 days. Apart from this record, he has also estab-tablished 4 others viz.: (*a*) first non-stop flight from London to Rome, (*b*) fastest journey from England to India, (*c*) the longest flight of a light aeroplane, and (*d*) the longest solo flight. In recognition of his great achievement, Capt. Bert Hinkler has been awarded the Air Force Cross by the King and £2,000 by the Australian Commonwealth Government, together with cheques of £1,500 from Australian newspapers and public subscriptions.

The Aero Club of India and Burma.—This club was formed during 1927 under the patronage of H.E. the Viceroy. The Commander-in-Chief is the president and leading officials, politicians and business men, both European and Indian, are on the General Committee. The objects are to develop civil aviation and, in particular, flying clubs throughout India. Clubs have already been formed in Delhi, Calcutta, Bombay and Karachi, and negotiations are taking place with regard to Madras and Rangoon. Flying will probably begin during the cold weather of 1928-29, and it is hoped that an increasing number of clubs will receive Government support as time goes on. Eight British " Moth " aeroplanes have already been ordered under the Government subsidy scheme, and the secretary of the club anticipates that there will shortly be an increasing market for the sale of machines to private individuals. British aircraft manufacturers would do well to pay attention to Indian requirements and to arrange for adequate representation on the spot. They are first in the field, have a deservedly high reputation for efficiency and thoroughness, and should follow this up by giving adequate service and attention to the market. All inquiries with regard to the Aero Club requirements should be addressed to the Secretary, Aero Club of India and Burma, Ltd., Cashmere Gate, Delhi.

Wireless Telegraphy.—I am indebted to the General Manager of the Indian Radio Telegraph Company, Ltd., for the following note, dated 3rd May, 1928, with regard to the development of wireless communication in India :—

" *Wireless Beam Service between Great Britain and India.*

The Wireless Beam Stations of the Indian Radio Telegraph Co., Ltd., were inaugurated by H.E. the Viceroy on July 23rd, 1927. The date is notable as the first time reciprocal wireless communication was established between the United Kingdom and India, His Majesty the King Emperor being graciously pleased on that occasion to exchange messages with H.E. the Viceroy. As the system had not then passed the official tests required by the British Post Office the Service was not actually opened to the public until 5 a.m. on Tuesday, September 6th, 1927.

The success of the new service was immediate and the volume of traffic at the outset considerably in excess of the most optimistic anticipations. The fact was in itself somewhat a handicap as the highly trained staff which had been assembled beforehand was found to be inadequate, and the management was faced with the difficult problem of expanding the staff and training telegraphists to handle this high speed traffic simultaneously with the operation of the service.

The aim of the company is to afford the public a cheap, accurate and speedy means of communication, and in furtherance of this policy negotiations are now being conducted with the Indian Government with a view to obtaining facilities for the more rapid distribution of traffic over inland lines.

The extension of the system to countries not at present served is also being followed up actively, and as soon as sanction is received from the Government of India and arrangements with other countries for the reciprocal stations completed, the necessary extensions for this purpose will be put in hand.

In addition to the development of new Beam Telegraph Services the policy of the Company includes inter-Continental telephony and "facsimile" reproduction at a later date.

Broadcasting Installations.

During the past year the Engineering Department of the Indian Radio Telegraph Company installed the two Marconi 12K.W. Transmitters at Bombay and Calcutta respectively, which stations are giving every satisfaction, and as broadcasting develops further installations will be required.

Point to Point Wireless Services.

During the past year the use of wireless for communication between various stations or places in India has not advanced to any extent, but many enquiries have been dealt with, and it is anticipated that wireless telephony will be installed in several of the Indian States. Extensions have been made to the wireless establishment of the Burma Military Police, who are also considering further considerable extensions. It is also expected that considerable development in the use of wireless for police purposes can be anticipated.

Wireless Beacons and Direction Finding Stations.

Various port authorities are considering the installation of wireless beacons for direction finding operations. The value to shipping and to the safety of life at sea has been so ably demonstrated in many parts of the world, it is hoped such installations will be introduced with advantage by the port authorities now considering such method.

Public Address Equipments.

The Indian Radio Telegraph Company have given several successful demonstrations with their Public Address Equipments, and there is quite a demand arising in India for Public Address functions and for Band amplification. The I.R.T. Co. hope to develop this business, and will keep in stock the latest and most-up-to-date equipments which can be installed at the shortest possible notice and operated by a trained competent staff.

Future Developments.

Apart from the inter-Continental telegraphic services there appears to be a considerable field for the development of wireless in India. It is admittedly suited for police outposts such as those mentioned above, for coastal communication with lighthouses and lightships, and as an aid to navigation to both ships and aeroplanes with the anticipated development of commercial aviation in India for aerodrome and meteorological purposes, it is anticipated there will be considerable developments on these lines in India in the near future."

Broadcasting.—The following note has been courteously provided by the Acting General Manager of the Indian Broadcasting Company, Ltd., Bombay :—

" Broadcasting in India is now an established fact, and a regular service, based on the practice of the B.B.C., is in operation from the two stations of the Indian Broadcasting Company. The Bombay station was opened on 23rd July, 1927, by His Excellency the Viceroy, and the Calcutta station on 26th August, 1927, by His Excellency the Governor of Bengal.

As has been stated in a previous report, the power of both stations is the same as 2LO., London. It is an interesting fact, however, that reception ranges appear to be much greater in India than in the British Isles. Regular reception of the stations is reported from places as far distant as the North-West Frontier Province and Ceylon. The wave-length of the Bombay station is 357·1 metres and its call-sign is ' 7BY,' while the wave-length of the Calcutta station is 370·4 metres and its call-sign is ' 7CA.' At the present time the number of hours of broadcasting is four on weekdays and three on Sundays, from each station. A quarter of this time is allocated to morning transmissions for the benefit of traders who may wish to demonstrate sets.

Instances of special transmissions during the year under review are the broadcasting of (1) the final of the All-India Rugby Football Tournament, from the Cooperage Football Ground, Bombay, on 17th September, 1927; (2) the relaying of speeches from the Old Town Hall, Bombay, on 30th November, 1927, on the occasion of the Annual Dinner of the St. Andrews Day Society, Bombay; (3) an eye-witness account of the arrival of H.M. King Amanullah Khan of Afghanistan at Bombay on 14th December, 1927; and (4) the relaying of speeches by H.E. the Governor of Bombay and the Agent of the B.B. & C.I. Railway at the Opening Ceremony of the Suburban Electric train service on 5th January, 1928. Running commentaries on football matches have also been broadcast from the Calcutta station as well as eye-witness accounts of the Military Searchlight Tattoo, which took place at Fort William, Calcutta, on 23rd February, 1928, and was repeated by request. The Calcutta station has also carried out several special broadcasts during the year. Another interesting feature of the programme has been the successful relaying by the Bombay station, on several occasions, of the Dutch short-wave station, P.C.J.J., and of the short-wave station at Java, Dutch East Indies. It is expected that when the British experimental short-wave station, ' 5SW,' transmits programmes at an hour more suitable for Indian listeners, the Company will relay this station also, and give residents in India an opportunity of hearing something of the programmes of the London station on simple crystal sets. At the present time the earliest hour at which such a broadcast can be carried out is 12.30 a.m. (Indian Standard Time); which is rather too late at night. At the 5-H fete, which was held in Bombay in February, 1928, one of the streets of the " English Village " was taken by wireless dealers and this did much to foster trade; many excellent demonstrations being given.

At the end of April, 1928, the number of dealers who had become members of the Indian Broadcasting Company, in order to import wireless apparatus, and who pay tribute to the Company, was 170. A list of these firms and individuals may be consulted at the Indian Section of the Department of Overseas Trade, London, S.W.1. The imports of wireless apparatus into India were £37,000 in 1926-27, but this figure has been increased to £118,000 for the year 1927-28. The Indian Broadcasting Company is gradually establishing itself, and the total number of receiving licenses which have been issued is about 5,000. Activity on the part of the Government in the tracking and prosecuting of persons using receiving sets without licenses is doing much to stimulate applications for the latter.

It is the intention of the Indian Broadcasting Company to open further stations as soon as the financial position will admit of these. Efforts are already being made to raise further capital for this purpose. The sites of the proposed new stations will probably be located in the neighbourhood of Lahore or Delhi, and Madras.

The Indian Broadcasting Company publish a fortnightly paper called ' The Indian Radio Times,' which gives a fortnight's programmes, in advance, for both of the Company's stations. This paper forms an excellent advertising medium for wireless firms, as it is in constant use for a fortnight and circulates among potential buyers of wireless components, parts, etc."

Far Eastern Association of Tropical Medicine, Congress in Calcutta.—The Seventh Congress of the Far Eastern Association of Tropical Medicine, which was held in India for the first time, was opened by H.E. the Governor of Bengal in Calcutta on December 5th, 1927, and was an unqualified success. Over 900 delegates from all over the world, including many of world-wide reputation, participated in the proceedings, which were also attended by a delegation from the League of Nations.

From the point of view of British economic interests the most useful feature of the Congress was the commercial exhibition of drugs, instruments and general medical and surgical supplies and allied products. There were some 42 stalls, including those of several well-known British houses. There was a prominent display of German drugs and instruments which attracted the interest of Indian doctors, to many of whom cheap price is the prime consideration. The Department of Overseas Trade circulated to likely firms in the United Kingdom details of this exhibition and the names of individuals who would be prepared to handle exhibits several months in advance, but the response was most disappointing. One specialist, who was sufficiently enterprising to take this opportunity of visiting India, assured me that the results exceeded his most sanguine expectations and that, during the week, he had interviewed no less than 250 delegates, both European and Indian, from all parts of British India and the native States.

Report of the Royal Commission on Agriculture in India.—The voluminous and comprehensive report of the Royal Commission on Agriculture in India, which embodies the conclusions and recommendations of the Marquess of Linlithgow and his colleagues after an investigation which covered the greater part of two years, was published by the Government of India at the end of June, 1928, and may be seen at the Department of Overseas Trade.

The principal recommendations are :—

(1) The establishment of an Imperial Council of Agricultural Research with a fund of Rs.50 lakhs.

(2) The formation of land mortgage banks with the assistance of the Government.

(3) The establishment of regulated markets as a means of solving the cultivators' marketing problems.

The Commission express their considered opinion that " the greatest hope for the salvation of the rural masses from their crushing burden of debt rests in the growth of a well-organised co-operative movement."

As I have frequently stated, British export interests are vitally concerned with any developments which may result in the improvement of the standard of living and the increased prosperity of over 70 per cent. of India's population. They would do well, therefore, to study the conclusions of the report. British manufacturers, in addition, have two direct points of contact with the problem in the supply firstly of fertilisers and secondly of agricultural machinery and implements. The Commission summarise their findings on these two questions as follows :—

Fertilisers.

" (1) The development of the manufacture of, and the local market for, sulphate of ammonia in this country is satisfactory.

(2) No further investigation under government auspices of the possibilities of manufacturing synthetic nitrogen in India is at present required.

(3) The objections to the establishment by the Government of India of a central fertiliser organisation subsidised by firms dealing in fertilisers are such that this course cannot be recommended, but the establishment by fertiliser firms of their own research stations working in co-operation with the agricultural departments and other bodies interested in the fertiliser question is to be welcomed.

(4) Neither an export tax on bones, bone meal or fish manures nor the total prohibition of such export can be justified.

(5) A thorough investigation of the economics of the bone-crushing industry is required before the establishment of bone-crushing factories at suitable centres can be recommended.

(6) The known deposits of natural phosphates in India offer no important possibilities as a source of fertilisers.

(7) No necessity at present exists for legislation against the adulteration of fertilisers.

(8) The railway authorities should keep under constant review the possibility of giving further concessions for the transport of fertilisers."

They refer at some length to the proposal submitted to them by the British Sulphate of Ammonia Federation, Ltd., and Nitram, Ltd., for the establishment by the Government of India of a central fertiliser organisation on which the Imperial and provincial agricultural departments as well as the important fertiliser interests would be represented. They state that :—

" The two companies, which are already expending £23,000 annually on research and propaganda in India, expressed their willingness to increase this amount to £50,000, the additional amount to be handed over to a central organisation constituted in the manner they suggest, provided that an equal sum is contributed by Government. The companies have made it clear that the research and propaganda they contemplate would be on the use of fertilisers generally, and would not in any way be confined to that of the products they manufacture or sell. This offer, though not disinterested, is undoubtedly generous and we have given it our most careful consideration. We regret, however, that we are unable to see our way to recommend its acceptance. We cannot but feel that, whatever safeguards were imposed, the work of, and the advice given by, an organisation, at least half the cost of which was borne by firms closely interested in the subject matter of the investigation, would be suspect and would thus be deprived of much of its usefulness, especially since, as we have pointed out, the agricultural departments in India are not yet in a position to pronounce authoritatively on the relative advantages of natural and artificial fertilisers. We, therefore, consider it preferable that the agricultural departments should remain entirely independent in this matter, but we need hardly say that we would welcome the establishment by the two firms mentioned, or by any other fertiliser firms, of their own research stations in India working in the fullest co-operation with the agricultural departments, the Indian Tea Association, the Indian Central Cotton Committee, and any other bodies interested in the fertiliser question, So much work remains to be done on the manurial problems of India that it is desirable that every possible agency should be employed on it. To the supply by the fertiliser interests of free samples for trial by the agricultural departments there can, of course, be no objection but we do not consider that any financial assistance beyond what is involved in this should be accepted."

Machinery and Implements.—The Commission's principal conclusions are as follows :—

" (1) In so far as cost is a deterrent to the adoption of even comparatively inexpensive implements, the agricultural departments would do well to

consider the possibilities of mass production of the wooden parts of such implements.

(2) The agricultural engineering sections of the agricultural departments should be completely re-organised and should be, in all respects, integral parts of the departments.

(3) In all provinces in which pumping and boring operations are in progress on a considerable scale, the engineering section should be divided into two branches, one for work on agricultural machinery and implements, and the other for pumping and boring.

(4) Work on water-lifts should be entrusted to that branch of the engineering section from which it is likely to receive the greatest attention. In provinces where wells are numerous, it might be desirable to entrust the work to a separate branch.

(5) All branches of the agricultural engineering section should be under the control of a senior engineer who would himself be under the control of the Director of Agriculture.

(6) The officer in charge of the work on agricultural machinery and implements should be primarily an engineer and secondarily a farmer.

(7) The relation of the capacity of the draught cattle in India to the implements they are required to draw is a problem which requires investigation.

(8) Exhaustive trials under the cultivator's conditions should be carried out in order to test the comparative merits of the country and the inversion plough.

(9) The aim of the agricultural departments should be the evolution of a small number of types of implements and machinery suitable for a wide range of conditions and suitable also for mass production.

(10) A thorough investigation into the economics of power cultivation is specially called for in the Central Provinces with a view to the possibility of reclaiming areas infested with " kans " grass.

(11) Railway freight rates on agricultural machinery and implements should be re-examined, and where possible, concessions should be given.

(12) The claim by manufacturers in India for a rebate of the import duty on iron and steel used in the manufacture of agricultural implements and machinery should be investigated by the Indian Tariff Board.

(13) The term " agricultural implements " in the Tariff Schedule should be interpreted in the sense most favourable to the interests of the cultivator.

(14) Peripatetic demonstrations of the use of improved implements should be given.

(15) Suitable arrangements should be made by agricultural departments, or by manufacturers in consultation with them, for hiring out the more expensive implements and machinery.

(16) Agricultural shows provide a useful means of following up the demonstration work of the agricultural departments."

British implement manufacturers are not likely to find very much information in the report which would be of definite, practical advantage to them. One important fact emerges, however, which is that any sales, propaganda or research work, which they may undertake in India, should be carried out in co-operation with the officers of the departments of agriculture. The market is still too vast and insufficiently developed to warrant any widespread organisation working direct among the rayats. The central organisation at Pusa and the agricultural officials and engineers in each province provide, however, a most useful medium for operations. By utilising this organisation British makers would

ensure that they were working on the right lines and would obviate the almost insuperable difficulty of granting credit which would at once arise in the case of direct dealings with cultivators.

The Roads Development Committee.—In my last report I traced the revelopment of the movement towards a co-ordinated road policy in India. I described the formation of the Indian Roads and Transport Development Association, Ltd., comprising the motor, oil, tyre and transport interests and the principal users of roads, and gave an account of the debate in the Council of State on February 9th, 1927, during which the whole question was ventilated, and the Government of India promised to appoint a committee of the Legislature to investigate the problem.

On November 3rd, 1927, the Government of India in the Commerce Department issued a resolution announcing the appointment of a Road Development Committee in the following terms:—

"The following resolution on the subject of road development was unanimously adopted by the Council of State on February 9th, 1927:—That this Council recommends to the Governor-General-in-Council to appoint a Committee including members of both Houses of the Central Legislature to examine the desirability of developing the road system of India and the means by which such development could be most suitably financed and to consider the formation of a Central Road Board for the purpose of advising in regard to and co-ordinating the policy in respect of road development in India.

In accordance with this resolution the Governor-General-in-Council, after consultation with the Local Governments, has decided to appoint a Committee consisting of members of the two chambers of the Indian Legislature with the following terms of reference:—(1) to examine the desirability of developing the road system of India, and, in particular, the means by which such development could most suitably be financed; and (2) to consider, with due regard to the distribution of central and provincial functions, whether it is desirable that steps should be taken for the co-ordination of road development and research in road construction by the formation of a central road board or otherwise.

The following gentlemen have agreed to serve on the Committee:—

Chairman: Mr. M. R. Jayaker, Bar.-at-Law.

Members: Diwan Chaman Lal, Sir Geoffrey Corbett, Sir Arthur Froom, Kumar Ganganand Sinha, Raja Ghazanfar Ali Khan, Lala Lajpat Rai, Mr. Mahmood Suhrawardy, Mr. Md. Anwarul Azim, Mr. Muhammad Ismail Khan, Dr. U. Rama Rau, Mr. K. V. Rangaswamy Ayyangar, Sardar Shivdeva Singh Uberoi and Mr. E. F. Sykes. Mr. H. F. Knight, I.C.S., will act as the Secretary, and Mr. K. G. Mitchell as Technical Adviser to the Committee.

The Committee will assemble immediately at New Delhi to decide its procedure. It is desired that the Committee should obtain and consider the views of all Local Governments and should also examine such persons, associations and other bodies as it thinks necessary. Persons who desire to be called as witnesses should apply in writing to the Secretary, care of the Department of Commerce, Government of India, New Delhi, giving their full names and addresses together with a brief memorandum of the points in regard to which they desire to give evidence.

The Government of India hope that the Local Governments and Administrations will afford the Committee all the assistance which it may require, and will comply with any request for information which may be addressed to them by it."

Evidence of the Indian Roads and Transport Development Association.—A questionnaire was issued by the Committee and both written and oral evidence was taken from Government Departments, Public Bodies and private interests in all parts of the country. The views of the Indian Roads and Transport Development Association, which were stated at length before the Committee, are summarised in the following note issued by them :—

" (1) That a limit should be set on the total amount of tax that a motor vehicle user should pay.

(2) That this limit should not exceed at this stage an equivalent of 8 annas per gallon of petrol used (this 8 annas to cover the present 4 annas petrol excise, the present Municipal taxes and local Board and Provincial taxes and any contemplated additional tax on petrol).

(3) That a Central Road Board should be formed.

(4) That this Road Board be advisory and also have certain controlling powers.

(5) That the Government of India be called upon to pass an act abolishing all Municipal and Local Board Taxation on motor vehicles in the provinces.

(6) That the first essential function of the Central Road Board should be the centralisation of the collection of all taxation on motor transport.

(7) That when this comes into force, provinces be reimbursed from the Central Road Board funds. That the amount of compensation given should be assessed at an amount sufficient to enable them to guarantee a loan to be utilised to replace the taxation which has been cancelled.

(8) That any balance remaining with the Central Road Board be used to raise a Central Loan and Sinking Fund. This loan to be used to further assist provinces in through road development and the building of bridges, etc., and the improvement of existing roads.

(9) That as soon as finance permits the Road Board be further supplied with funds derived from the existing 4 annas excise on petrol and a sum from Customs duty equivalent to any proposed reduction in Custom duty."

Report of the Committee.—The report of the Committee was due to be signed in the first week of July, 1928, but will probably not be published until later in the year. Consequently it is not possible to give their actual findings. In an Associated Press message, however, which has been published in the press, it is conjectured that the Committee will recommend, as a road development tax, the imposition of a two-anna tax by the Central Government on every gallon of petrol produced in, or imported into, India. The message also states that :—

" the Commissioners desire the establishment of a convention that the Assembly should annually vote the proceeds of this tax to a separate road account. A standing Committee of the Central Legislature to deal with roads is also suggested. The grants from road account should be given to provinces for the development of roads.

In regard to the formation of a Central Board the Committee, it is understood, suggest the following measures :—

Co-ordination in regard to road development and road construction, and an annual road conference, with the Central Government Member in charge as Chairman, the members of the Standing Roads Committee, the representatives of the other departments of the Central Government, the Provincial Ministers and their advisers, and the representatives of the Indian States as members, and the Road Engineer of the Central Government as Secretary.

The subjects for discussion at such conferences are the classification of roads, co-ordination with other methods of transport, road construction research, the taxation of transport, including motor vehicles, their regulation, registration, licensing and road statistics and intelligence and the introduction of ministerial responsibility. The Government of India should, it is suggested, contribute to provident funds for specific damages done to provincial roads by army vehicles. Import duty on parts and accessories of motor cars should be reduced to fifteen per cent.

The Committee, it is understood, suggest that motor vehicle licence fees be so graded as to control passenger services. The abolition of road tolls is also urged."

The Indian Cinematograph Committee.—The Government of India, by a resolution in the Home Department of October 6th, 1927, appointed a committee which was composed as follows:—

Chairman:
Diwan Bahadur T. Rangachariar, C.I.E., Vakil, High Court, Madras.

Members:
The Hon. Khan Bahadur Sir Ebrahim Haroon Jaffer, Kt.
Col. J. D. Crawford, D.S.O., M.C., M.L.A.
Mr. K. C. Neogy, M.L.A., Vakil, High Court, Calcutta.
Mr. A. M. Green, I.C.S., Collector of Customs and Member of the Bombay Board of Film Censors.
Mr. J. Coatman, M.L.A., Director of Public Information, and
Mr. G. G. Hooper, M.C., I.C.S., as Secretary.

with the following terms of reference:—

(1) to examine the organisation and the principles and methods of the censorship of cinematograph films in India;

(2) to survey the organisation for the exhibition of cinematograph films and the film producing industry in India;

(3) to consider whether it is desirable that steps should be taken to encourage the exhibition of films produced within the British Empire generally and the production and exhibition of Indian films in particular; and to make recommendations.

After an exhaustive inquiry, extending over eight months, the Committee presented its findings to Government in June, 1928, and the report was published on August 7th, 1928. The report is a unanimous one, but the three European members have appended a minute of dissent with the general argument underlying Chapter IV which deals with the measures proposed for encouraging production, distribution and exhibition of Indian films, and in particular with the recommendations regarding a quota for Indian films and the grant of financial aid at the expense of public funds.

Space does not permit of any detailed account of the numerous recommendations of the Committee, which can be seen by those interested at the Indian Section, Department of Overseas Trade, 35, Old Queen Street, London, S.W.1. The principal recommendations are:—

(1) The creation of a Cinema Department, to form part of the Commerce Department of the Government of India, consisting of an Advisory Committee with a Central Cinema Bureau as its executive branch. The functions of the Cinema Department should be generally to advise, guide and assist the trade

and industry and work for its improvement. Advice and assistance in technical matters would be given by the experts of the Bureau and advice on the business aspects—finance, business management, etc.—would be supplied by the Advisory Committee, which should include experienced men of business.

(2) The creation of a Central Indian Board of Film Censors at Bombay to consist of seven or nine members with a majority of Indian non-officials and a non-official Indian Chairman.

(3) With the double object of finding an outlet for suitable Indian films and removing the unsatisfactory feature that Indian films are excluded from a large number of the well-equipped cinemas in India, the Indian members of the Committee recommend that a qualified quota system for Indian films be imposed for a period of ten years. This recommendation, however, is strongly opposed by the European members of the Committee.

From the point of view of British suppliers of films to the Indian market, perhaps the most interesting feature of the report is the definite statement that it is *not* recommended that any steps be taken to give any special preference or encouragement to films produced within the Empire. The Committee are unanimous on this point. They state that:—

" Considering the question on its economic merits also we are satisfied that there is no necessity for any preferential treatment for the admission of British films in this country. The chief exhibitors in this country, including Madan's, are not to any great extent tied down by that system of blind and block booking which prevails in England and in other parts of the Empire. Most of them are only too ready to take British films, and some of the chief exhibitors very often prefer British to other films. While, as we have stated, there is a small modicum of compulsion in this country also on exhibitors to take films from one source alone, still they are generally free to take any films which they consider that the public will fancy. Their freedom of choice is not materially restricted.

Further, there are a large number of cinemas in India which cater mainly for European audiences. These audiences being largely British, have a natural preference for British films. In such cinemas a good British film generally draws larger audiences than films of other nationalities. Figures supplied to us by one of the leading exhibitors showed conclusively that the receipts in his theatre from British films were on the average greater than those from American or other films.

A considerable footage of British films is now being imported annually by each of the four leading importers. Moreover, from the figures we have examined of the import into India of films from the United Kingdom compared with those relating to production there during recent years, India may be said to have taken an amount nearly equivalent to the whole of the output in the United Kingdom. Taking feature films alone, which are the chief concern, we find that in 1925 India imported from the United Kingdom 20 as against 34 films produced there; in 1926, 27 against 26, and in 1927, 27 against 48. That is, taking all the three years together, against 108 films produced in England 74 films have been taken. In other words, an amount equivalent to 70 per cent. of the films produced in England has been imported into this country. Examined by footage, the figures are even more telling. During the three years 1925 to 1927, the total production in the United Kingdom of feature films was approximately 648,000 feet, and during the three years 1925-26 to 1927-28, there passed through the various Indian Censor Boards broadly 560,881 feet of British feature films. The total quantity of British films imported (including both news and feature films and copies) was 596,686 feet in 1925, and 726,222 feet in 1926. The figures of production and export to India were furnished to us by His Majesty's Trade Commissioner in India.

There has been no complaint during our inquiry throughout India and Burma, either on account of forward contracts or any predilections of exhibitors, about British films not gaining admittance or that any films were refused exhibition in this country.

No artificial aid is therefore needed to advance the British film trade in this country. We entirely endorse the remarks of the Australian Board of censors in their report for 1925 : " If fewer British films are imported into this country the reasons are generally well known. The prices have something to do with it; the quality has something to do with it. Whereas other countries have got agencies here, British producers are scarcely represented at all." As in Australia, here also there is no accredited representative of the British film industry. When British Empire films can show the quality and finish and can be had for the same prices as other Western films, there will be no difficulty in those films finding such market as is available in this country. In fact the old and strong trade connections between India and Britain and the natural predilection of Britons in India do give British films a definite preference. It is no good to India to substitute artificially one class of non-Indian films for another. Our aim will be, and should be, to remove the non-Indian grip on the screen."

A further important recommendation is that if non-Indians should at any time threaten to acquire large cinema interests in India, otherwise than under the conditions prescribed for participation in the quota system, Government should arm themselves by legislation with powers to exclude them from operating.

While the European members of the Committee are opposed to the quota system, they agree with their colleagues that Government should arm themselves with legislative powers if, and when, foreign domination becomes imminent or probable.

CHAPTER II.

THE RUPEE TENDER AND ITS IMPLICATIONS.

In previous reports during the past seven years I have traced with some care the gradual steps taken by the Government of India to give effect to their avowed policy of developing the purchase of stores as far as possible in India, of granting a preference to articles manufactured or partly manufactured in the country and of utilising the activities of the Indian Stores Department in Delhi/Simla as a lever to stimulate the local production of such articles.

In 1924 the rules for the supply of articles required to be purchased for the public service were revised and considerably modified, the main features of the new rules being the assertion of a more definite preference for stores produced and manufactured, wholly or partly, in India, an important extension of the power to purchase imported stores and the introduction of a central purchasing agency in India, viz., the Indian Stores Department.

This development, however, failed to satisfy either the Indian politicians in the Legislative Assembly or the representatives of British merchants established in India; who joined hands in calling for the introduction of a system, known as the rupee tender system, whereby purchases of stores would normally be made in India as a result of tenders called for in India, payment being made in rupees. These proposals were strongly supported by the officials of the newly-created Indian Stores Department, who naturally wished to increase the turnover of their department and so place it on a paying basis. The Secretary of State for India, in response to representations made by the Government of India, voluntarily agreed to relinquish in favour of the Government of India his control over stores purchase matters, with the exception of certain lethal weapons, munitions of war, technical apparatus and equipment and other stores required by naval, military or air forces of the Crown in India for which drawings, patterns, specifications or designs had been prescribed by the Admiralty, War Office, Air Ministry, Government of India or Commander-in-Chief in India. These, he stipulated, should still be obtained by indent on the India Store Department, London.

Armed with this authority the Government of India set up in 1927 an inter-departmental Committee, including representatives of the Industries Department and Railway Board, to draw up revised stores rules which would provide for the inauguration of a rupee tender system applicable to the purchase of stores (other than printing and stationery stores) for the Government of India, including State railways, and for provinces other than Governors' provinces. The negotiations were somewhat protracted as the Railway Board were faced with the difficulties of purchasing

railway rolling stock and material of highly complex design without the advice of their consulting engineers and technical advisers in London. Early in 1928, however, Messrs. Rendel, Palmer & Tritton, the consulting engineers to the Government of India in respect of all State railways, agreed to open a branch office in Calcutta before the end of the year. After some months further consideration the revised rules were finally approved by the Government of India and were published for criticism in September.

The following were the terms of the Government resolution :—

Resolution, Simla, the 13th September, 1928.—Under the existing rules for the supply of articles for the public service which were sanctioned in 1924, articles which are not manufactured in India must, except in certain specified cases, be purchased through the India Store Department, London. Where tenders are called for by that Department, they have to be made in terms of sterling and where the necessity arises of making a choice between the Indian and the foreign article, a close comparison of the tenders offered in India in rupees and the tenders offered in London in sterling is required. The view has been held in many quarters that the existing principles and procedure are not those best calculated to advance the general policy of Government in this matter, viz., " to make their purchases of stores for the public service in such a way as to encourage the development of the industries of the country to the utmost possible extent, consistent with economy and efficiency." It has been strongly urged that the introduction of a system providing for the purchase in India, as far as possible, of all articles, whether Indian or foreign, would best serve the interests both of Indian industrialists and of purchasing departments. These views were reflected in a resolution adopted by the Legislative Assembly in February, 1924, which indicated that in view of the Assembly the existing system of stores purchase was not in the best interests of India and that it should be replaced by a system of rupee tenders for delivery in India. And the Government of India, after full consideration of the question, have decided to accept the main principle underlying that resolution, viz., that it should be the general rule that articles required for the public service should be purchased in India, where tenders will be called for in rupees.

2. In order to give effect to the policy now adopted, the Government of India have framed the draft rules appended to this resolution, which embody their provisional conclusions on the subject and are intended to supersede all previous rules relating to the purchase of stores other than printing and stationery stores. The draft rules will be taken into consideration on or after the 1st December, 1928, and any criticism or suggestion received with respect to these rules before that date will be considered by the Government of India. The rules, as finally approved, will not be brought into force until a year has elapsed after publication in their final form. The object of this moratorium is to give time to the departments and firms who may be affected to make the necessary adjustments in their procedure in order to conform to the provisions of the new rules.

The New Stores Rules.—The following are the rules which were published for criticism on September 13th, but which are not necessarily in their final form :—

Rules for the supply of articles required to be purchased for the public service.

Preamble.

The policy of the Government of India is to make their purchases of stores for the public service in such a way as to encourage the development of the industries of the country to the utmost possible extent, consistent with economy and efficiency, and the following rules which are applicable to the

purchase of stores (other than printing and stationery stores) for the Government of India and for provinces other than Governors' provinces, are prescribed in accordance with this policy. These rules supersede all previous orders on the subject. In order to give effect to the above policy, Departments of the Government of India or officers expressly authorised by them in this behalf may, when they are satisfied that such measures are justified, allow a limited degree of preference in respect of price to articles produced or manufactured in India.

Subject to the above preference in making purchases will be given :—

(*a*) To articles which are produced in India in the form of raw materials or are manufactured in India from materials produced in India over articles wholly or partially manufactured in India from imported materials or articles not manufactured in India, provided that the quality is sufficiently good for the purpose.

(*b*) To articles wholly or partially manufactured in India from imported materials over articles not manufactured in India, provided that the quality is sufficiently good for the purpose.

(*c*) To articles held in stock in India over those which would need to be specially imported, provided that they are of suitable type and requisite quality.

Rule 1.—Except as provided in Rules 6 and 7, all articles required to be purchased for the public service shall be purchased in India.

Rule 2.—Unless, either because of the smallness of the order, or for some other sufficient reason to be recorded, it is not in the public interest to call for tenders, tenders shall be invited for the supply of all articles which are purchased in India under these rules. It shall be a condition on which tenders are invited that supply shall be made in India for payment in rupees in India ; and no tender which fails to comply with this condition shall be accepted.

Rule 3.—All articles, whether manufactured in India or abroad, for which specifications and/or tests have been prescribed by competent authority, shall before acceptance be subjected to inspection and/or the test or tests during manufacture or before or after despatch from the suppliers' premises, which have been prescribed either in the specifications or otherwise.

Rule 4.—Important plant and machinery and iron and steel work shall be obtained only from firms approved by the Chief Controller of Stores, Indian Stores Department, and specified in the list issued by him from time to time.

Rule 5.—Nothing in the rules shall be deemed to prohibit the purchase of articles by one Department or Railway from another.

Rule 6.—(i) seeds ; (ii) cinchona bark ; (iii) articles for experimental or research purposes ; (iv) china, glass, cutlery, plate, crockery and perishable fabrics, including linen for residences which are furnished by Government ; (v) copper, zinc and other non-ferrous metals produced and purchased in Australia ; (vi) timber produced and purchased in Australia or North America ; (viii) such articles as the Superintendents of Vaccine Depots may require for the preparation of vaccine lymph ; (viii) chemicals and scientific instruments ; (ix) preserved and tinned foodstuffs ; (x) articles required for Viceregal residences ; (xi) any other articles of a special or unusual character ; shall be purchased in India if suitable and economical purchases can be made there, and when purchased in India Rules 2 to 5 shall apply to their purchase. If, however, suitable and economical purchases cannot be made in India, they may be obtained abroad under the following rules :—

(*a*) Where the value of the purchase exceeds Rs. 5,000 the purchasing officer shall place on record his reasons for not purchasing in India.

(*b*) The purchasing officer may at his discretion either obtain the article that he requires by indent on the India Store Department, London, or pur-

chase it direct from manufacturers or dealers abroad. Where resort is had to direct purchase from manufacturers or dealers abroad, tenders should, whenever practicable, be first obtained.

(*c*) Payments for articles purchased abroad under this rule in countries other than the United Kingdom shall be made direct to the suppliers by the purchasing officer. Payments for articles purchased under this rule in the United Kingdom shall be made through the High Commissioner for India.

Rule 7.—Lethal weapons, munitions of war, technical apparatus and equipment, and any other stores required by the naval, military or Air Forces of the Crown in India for which drawings, patterns, specifications or designs have been issued, prescribed or announced by the Admiralty, War Office, Air Ministry, Government of India or Commander-in-Chief in India, shall be obtained by indent on India Store Department, London, unless they are available in India in accordance with prescribed drawing, pattern, specification, or design. Any departure from this rule requires sanction of the Government of India, and whenever an expenditure exceeding Rs.20,000 is incurred in any individual case to which such sanction has been accorded it shall be reported to the Secretary of State for India in Council.

Principal Modifications in the Rules.—A comparison with the rules promulgated in 1924 shows that the most drastic changes are in respect of stores which are not manufactured in India. The old rules provided that, except in the case of (*a*) stocks in India or on the way out to India, (*b*) material supplied by contractors for the construction of important works let out to them on contract, and (*c*) plant and machinery sold by branches or technical agents in India of approved manufacturers, all articles not manufactured in India should be obtained by indent upon the Store Department, London. Rule 1 of the new Regulations, however, lays down that, with the exception of certain military, naval and aircraft stores referred to in Rule 7 and a number of special items enumerated in Rule 6, *all articles required to be purchased for the public service shall be purchased in India.*

Rule 2 enjoins that tenders shall, normally, be invited for the supply of all articles which are purchased in India and that *it shall be a condition that supply shall be made in India for payment in rupees in India.*

In the old rules it was stipulated that preference would be given (1) to all articles produced in India in the form of raw material or manufactured in India from materials produced in India provided that the quality is sufficiently good for the purpose and the price reasonable, and (2) to articles wholly or partly manufactured in India from imported materials provided that the quality is sufficiently good and the price not unfavourable. The revised rules reaffirm these preferences omitting any reference to price, and add that preference will also be given to articles held in stock in India over those which would need to be specially imported provided that they are of suitable type and requisite quality. Moreover, it is now definitely stated that *where they are satisfied that such measures are justified, a limited degree of price preference may also be allowed by Departments of the Government of India or officers expressly authorised by them in this behalf.*

Some Results of the New Policy.—One of the first results of the enforcement of the new rules will be a very material increase in the purchases made by the Indian Stores Department and by the Stores Controllers of the State railways in India with a corresponding reduction in the activities of the India Store Department, London. As, however, some time must elapse before the purchasing authorities in India are able to expand their organisation to cope with all demands, it is probable that simultaneous tenders will continue to be called in India and in London for certain of the more important and highly technical items of machinery and railway plant. The Director-General of Stores, London, will continue to be responsible for the purchase of the stores enumerated in Rule 7 and for most of those referred to in Rule 6. He will still be the principal purchasing authority for the requirements of Governors' provinces, although it is expected that these provinces will utilise the services of the Indian Stores Department to an increasing extent. Moreover, the Director-General in London will continue to be in charge of the inspection, at all stages of manufacture, of stores purchased in the United Kingdom and on the Continent. The control of stores purchase has now, however, definitely been transferred from the Secretary of State to the Government of India and future policy will be decided upon in Delhi/Simla.

The Chief Controller of Stores and the State Railway Stores Controllers will now have, subject to the provisions of the new rules, a much freer hand in the purchase of imported stores. They will not be bound by the restrictions of the 1924 regulations, but will be able to purchase from any supplier in any part of the world provided that he conforms to the regulations as regards inspection, &c., delivers in India and accepts payment in India in rupees. On the other hand, it may safely be predicted that unless a contractor is actively represented in India by a branch office or experienced agency which maintains close touch with the Purchasing Departments, is competent to submit complete tenders and is authorised to receive payment for stores supplied, he stands very little chance of obtaining Government of India stores contracts.

The Position of British Suppliers of Stores and Railway Plant.—During the past six years I have consistently recommended that British suppliers of stores which are purchased by the Indian Stores Department should so expand their organisation in India that they may be in a position to meet the Government of India requirements in India as completely and efficiently as they have hitherto met them in London. It is satisfactory to note that most British manufacturers of machinery and engineering stores have already taken action on these lines. The inclusion of railway plant and material for State railways within the scope of the rupee tender purchasing system will bring in an additional large class of manufacturers.

Most of the principal suppliers of rolling stock, bridge work, permanent way material, &c., have hitherto contented themselves with maintaining touch with the India Stores Department, London, and the London head offices and consulting engineers of the company-operated lines. They have, quite naturally, not considered it necessary to keep in touch with the Railway Board and railway indenting officers in India as the orders have been forthcoming in London, and they hesitated before incurring the additional expense of an organisation in India. Now that the rupee tender system is about to be enforced and Messrs. Rendel, Palmer & Tritton, the consulting engineers, are themselves opening an office in India, the time has come when an Indian organisation is essential if our position is to be safeguarded. Foreign competitors, both American and Continental, are already in the field, and unless British firms follow suit they will be seriously handicapped in the future. A few of the locomotive and wagon builders are already represented in India, and several makers of permanent way materials and machine tools have an active organisation on the spot. It is to be hoped that the remaining British firms of suppliers and railway contractors will lose no time in reaching a decision on this point. If they would, as a preliminary measure, send out a director or other senior officer to survey the position and consult with the members of the Railway Board and the leading railway officials throughout the country they would quickly realise the dangers of the present position.

The following considerations may prove to be of value to firms who are in doubt as to the type of organisation they require :—

(1) In many cases manufacturers may find it advantageous to register a limited liability company in India with rupee capital and in some instances it would be desirable to have a proportion of Indian directors on the board. The principal advantages may be summarised as follows :—

(*a*) It has been laid down as the settled policy of the Government of India " that no concession or bounty will be given to any firms in regard to industries in India unless such firms have a rupee capital, unless such firms have a proportion, at any rate, of Indian directors, and unless such firms allow facilities for Indian apprentices to be trained in their works."

(*b*) The preamble of the revised stores rules already quoted lays down that preference in making purchases will be given to articles wholly or partially manufactured in India from imported materials over articles not manufactured in India, provided that the quality is sufficiently good for the purpose. According to this rule it would be possible for a British manufacturer to carry out a certain portion of the manufacture of his products in India and—if he were registered as an Indian Company—he would, I think, be justified in claiming preferential treatment. I am convinced that British manufacturers who have registered in India and have Indian directors will be in a much stronger position in dealing with Government Purchasing Departments than mere branches or agencies of overseas firms.

(*c*) So far as general business is concerned, the fact that a Company was registered in India or in Great Britain has hitherto had little influence on its sales, but with the increase of political and racial feeling during the past few years, one feels that in the future there may be advantages in having

well-known Indian names on the Board. The rapid Indianisation of all the services lends point to this.

(2) The preamble to the revised stores rules further states that preference will be given to articles held in stock in India over those which would need to be specially imported, provided that they are of suitable type and requisite quality. This rule will, in practice, compel British manufacturers and suppliers of stores in regular demand by the Government of India to maintain stocks in India in the hands of their branches or agents, otherwise they will run the risk of losing trade to their competitors, both British and Foreign, who do hold stocks in the country. It is also important that the local branches and agencies of British firms who hold stocks in India should apply to the Chief Controller of Stores, Indian Stores Department, Delhi/Simla, and to the Stores Controllers of Indian State Railways to be noted on their standard lists of approved contractors. They should at the same time furnish a complete list of the articles usually stocked and the amount of stock which they normally carry.

It is extremely likely that one result of this extended purchasing by Government from stocks in India will be to introduce increased foreign competition. Our foreign rivals are, in some cases, strongly entrenched in this market, and several cases have come to my notice where local firms are stocking American goods, solely because they are granted more liberal financial terms by American makers, who are prepared to grant two or three months or even longer credit on the stocks supplied. A considerable number of the larger merchant houses in India are prepared to pay cash in London for their stocks, but it should be remembered that some of the newer and lesser firms, who are equally reliable and frequently more energetic agents, cannot afford to lock up their capital in this way. In these instances a three to six months bill would meet the case. I appeal to many British manufacturers, who expect their agents not only to purchase stocks outright by cash in London but also to meet the heavy costs of travelling and advertising, to take a reasonable view of local conditions. The number of first class agents in India with ability, energy and intimate knowledge of the requirements of Government is limited. Foreign manufacturers have realised this fact and have, in many cases, appointed them as agents. Unless many British makers are prepared to be more generous in their agency terms and to take a greater interest in the development of their sales in India, they may find that the most efficient local representatives are already fully engaged and that they are obliged to appoint second-rate firms with the result that their interests are bound to suffer.

(3) When the rupee tender system comes into force, the branch, representative or agent of the British manufacturer will be dealing with Government departments in the relationship of Principal to Principal. Payment for stores and material supplied will be made in India by Government to the branch, representative or agent, as the case may be, with whom the contract was concluded. It will, therefore, be most important that British manufacturers should be represented by an organisation in India over which they have control or in which they can implicitly rely. Otherwise, cases might arise, as I believe they have already arisen in other markets in the Empire, where agents received considerable sums from Government Departments in payment of plant and stores supplied which they failed to remit to their Principals in the United Kingdom and, in the meantime, became insolvent. This is an aspect of the effects of the rupee tender system which has not, I think, so far, been appreciated but which would seem to be important.

(4) It will have been noted from the preamble of the revised rules that " the policy of the Government of India is to make their purchases of stores for the public service in such a way as to encourage the development of the industries of the country to the utmost possible extent consistent with economy and efficiency." This policy is being carried out most zealously by the officers of the Indian Stores Department and by the Railway Board, who appear to be

determined to purchase their requirements from Indian industries if possible and, failing that, from the most economical source of supply irrespective of country of origin. British manufacturers must realise that, apart from the results of their own efforts, they will have no advantages in competition with foreign interests and, in the case of competition with Indian Industries, the scales will be heavily weighted against them. Their success will therefore entirely depend upon their own efforts and the suitability of the Indian organisation which they may set up. The ideal form of representation for the large firms of manufacturers of rolling stock, steelwork, permanent way material and other important items of railway stores would appear to be a locally registered Limited Liability Company, holding stocks of those stores or parts which are in constant demand, assembling its products in India where such a course conduces to efficiency or economy, and manufacturing locally those portions of its products which can be manufactured more advantageously in this country.

The Indian Stores Department in 1927-28.

Note.—I am indebted to Mr. J. S. Pitkeathly, C.I.E., C.V.O., C.B.E., Chief Controller of Stores, and to Mr. K. M. Kirkhope, C.I.E., Officiating Chief Controller, for the information which follows and for valuable co-operation and help which have always been most willingly given. The annual reports on the administration of the Indian Stores Department may be seen at the Department of Overseas Trade, 35, Old Queen Street, London, S.W.1, and should be read by all firms interested in the supply of stores to Government.

The Chief Controller in his administration report for the year 1927-28 reviews the progress made during the year in the following terms :—

" The progress made in the previous five years of the Department's existence was fully maintained. Indeed, in some directions, notably the purchase of engineering and miscellaneous stores and the inspection of stores, a further advance has been noted.

Activities of the Purchase Branch.—The value of the purchases made during the year diminished by about Rs.25 lakhs but, as has been explained in the report, this result is in no way attributable to any real contraction of the business of the Department. As a matter of fact, the various purchase organisations were more fully occupied during the year under review than in any year previously. In effecting purchases every effort continued to be made to utilise the resources of India to the fullest extent compatible with efficiency and economy, and the results achieved, more especially in respect of textile goods, as is to be expected, were as satisfactory as those in the past years.

Activities of the Inspection Branch (General).—The largest measure of the progress made during the year occurred in the Inspection Branch. The Calcutta Inspection Circle, notwithstanding the curtailment of the wagon construction programme, one of the more important classes of work hitherto undertaken by it, was actually entrusted with a larger volume of business than in any previous year, while the outturn of the Bombay Inspection Circle exceeded that of 1926-27 by over 66 per cent.

Activities of the Metallurgical Inspectorate, Jamshedpur, and the Government Test House, Calcutta.—The services of the Metallurgical Inspectorate and the Government Test House were more fully utilised during the year than in past years. The number of tests and analyses carried out by each of these organisations exceeded the previous records, though there was a slight decline in the tonnage of the products of the Tata Iron & Steel Co. inspected by the Metallurgical Inspectorate. This was, however, more than counter-balanced by accretions of other work to that organisation, with the result that its earnings exceeded those of the past year.

Specifications and Advisory Work.—These functions of the Department continued to receive the attention which their importance merits. A number of existing specifications were revised and brought up-to-date, and an equal number of new specifications for stores of various descriptions were framed during the year. The Department was again entrusted with the scrutiny of several schemes of great financial importance, and it availed itself of every opportunity of affording technical advice and assistance to manufacturers.

Indents on the India Store Department, London.—The results of the year 1927-28 in this sphere of the Department's activities seem to indicate that the work done by the Department in the past in the matter of the scrutiny of indents on the India Store Department, London, is beginning to bear fruit. The Department found it necessary during the year to question the inclusion in these indents of a far less number of items than formerly, and this development suggests that the resources of India are being utilised by consuming Departments to a greater extent than hitherto.

Financial Position.—The data at present available in respect of the receipts of the Department and of the expenditure directly debitable to its budget grant is incomplete, but it indicates that the financial position at the end of 1927-28 is likely to be much the same as it was at the close of 1926-27."

" **Work of the Purchase Branch.**—The total value of the purchases effected fell from Rs.3,98,82,245 to Rs.3,73,03,846. There was an increase of 31 and 25 per cent. respectively in the total number of indents and items dealt with in 1927-28, as will be observed from the subjoined table :—

Organisation.	No. of indents.		No. of items.	
	1926-27	1927-28	1926-27	1927-28
Headquarters	3,925	4,886	23,193	27,028
Calcutta	2,344	2,805	16,916	19,505
Bombay	1,079	1,745	6,989	8,911
Karachi	1,213	1,751	8,960	14,669
Total	8,561	11,187	56,058	70,113

Purchase of Textile Stores.—The textile purchases amounted to Rs.1,18,81,913 in value, against Rs.1,62,86,293 during 1926-27. In other words, there was a decrease of 27 per cent. The figure of 1926-27, as will be seen from the previous year's report, was swollen by the inclusion in the transactions of that year of certain purchases of substantial value which, but for the late receipt of indents, would have been effected during the year 1925-26 but, even if allowance be made for this increment, the figure for the year under report remains lower than that of the previous year. This decrease does not, however, indicate that less resort was made to the Department for the transaction of this class of business. It is due partly to more extended competition, resulting in the submission of more favourable quotations to the Department, and partly to an alteration during the year of the procedure in force in the Army Department for placing their demands for such stores on the Indian Stores Department, the effect of which is to transfer to a larger extent than hitherto the operation of purchase to the year in which the stores are delivered and paid for. As an indication of the fact that this class of business is not decreasing in volume, it may be mentioned that the Department purchased for other authorities textile goods to the value of Rs.6½ lakhs more than in 1926-27.

Preference, without the sacrifice of economy and efficiency, continued to be given to goods of Indian origin and manufacture. The value of such goods amounted to 96·8 per cent. of the total expenditure on this account.

Purchase of Engineering and Miscellaneous Stores.—The value of the engineering and allied stores which were purchased during 1927-28 amounted to Rs.2,54,21,933 as against Rs.2,35,95,952 in 1926-27. Approximately one-half of the former amount was expended on stores classified as "Engineering," such as electrical power generating plant, excavating machinery, workshop machinery, steel structures, cranes, sluice and regulator gates, steel barges, pipes, steel tanks, road rollers, electric motors, fans, cables, lamps, meters and other accessories. The remaining one-half represents the value of hardware and miscellaneous stores, such as rubber tyres and tubes, cement, oil fuel, oils (lubricating, axle, cylinder, linseed, castor, kerosene), paints, varnishes and painters' materials, creosote, steel section sheets, barbed and plain wire, railway sleepers (sal and deodar), petrol, asphalt, asbestos sheets, tipping wagons, rails, and permanent way materials and general ironmongery.

Wherever possible, notably in respect of cement, oils, paints and steel work, stores of Indian manufacture and origin (wholly or partly) were obtained; but in the case of other engineering plant and machinery the bulk of the expenditure was necessarily incurred on the products of foreign countries.

The Central Departments, in particular the Army Department, contributed most largely to the increase in the volume of these transactions, the purchases on their behalf having risen by 47 per cent. A smaller volume of work was transacted for the Provincial Governments, Railway Administrations, Indian States and public bodies.

Details of Important Purchases.—The more important purchases which were made are specified below :—

		Amount. Rs.
	TEXTILES.	
1.	Tents and components	14,86,000
2.	Blankets, woollen	12,09,000
3.	Drill khaki and jean kahki	11,27,000
4.	Cotton waste	7,47,000
5.	Drill, white and coloured	6,03,000
6.	Socks and stockings, woollen	5,41,000
7.	Paulins and waterproof canvas	4,57,000
8.	Waistcoats, cardigan jackets and jerseys	3,66,000
9.	Jhools and rugs	3,40,000
10.	Yarn, woollen and cotton	3,38,000
11.	Pugree cloth, khaki and other colours	3,22,000
12.	Cordages, ropes and twine	2,99,000
13.	Calico, muslin and cambric	2,57,000
14.	Bags, postal, flax and jute canvas, proofed and unproofed	2,40,000
15.	Serge	2,11,000
16.	Sheets, barrack	2,01,000
17.	Flannelette	1,83,000
18.	Sheets, hospital	1,52,000
19.	Dosuti	1,51,000
20.	Durries, cotton and woollen	1,42,000
21.	Wool cotton, absorbent, surgical	1,28,000
22.	Canvas	1,19,000
23.	Hessians and gunnies	1,09,000
24.	Blanketting cloth	1,07,000
25.	Coir fibre	1,04,000
26.	Chutt	1,02,000
27.	Putties, woollen and cotton	96,000
28.	Twill cotton, khaki and white	86,000

		Amount. Rs.
Textiles—*continued.*		
29.	Comforters and caps, woollen	81,000
30.	Rope, manilla, coir	81,000
31.	Towels and towelling cloth	78,000
32.	Greatcoat cloth	72,000
33.	Alpaca	70,000
	ENGINEERING AND MISCELLANEOUS.	
34.	Tyres and tubes, rubber	21,60,000
35.	Cement	20,37,000
36.	Creosote	12,80,000
37.	Sluice gates and regulators	11,29,000
38.	Steel sections	11,04,000
39.	Excavating machinery	9,08,000
40.	Electric fans, lamps and fittings	8,87,000
41.	Steel structures	8,43,000
42.	Electrical power generating plant	8,27,000
43.	Oil fuel	7,75,000
44.	Oil, lubricating, miscellaneous	7,19,000
45.	Paints	5,78,000
46.	Pipes and fittings	5,50,000
47.	Zinc ingots	2,90,000
48.	Sheets, galvanised, plain and corrugated	2,87,000
49.	Electrical driven haulage gear	2,72,000
50.	Engineering plant and equipment	2,50,000
51.	Road rollers	2,23,000
52.	Steel barges	1,97,000
53.	Electrical distribution material	1,84,000
54.	Kerosene oil	1,54,000
55.	Workshop machinery	1,42,000
56.	Linseed oil, raw and double boiled	1,10,000
57.	Maconite cables and fittings	1,08,000
58.	Barbed wire	1,05,000
59.	Railway sleepers, sal, deodar, etc.	1,05,000
60.	Asphalt	87,000
61.	Rock crushing and granulating plant	65,000
62.	Petrol	65,000
63.	Stoneware pipes	63,000
64.	Culverts, Acme and Armco	60,000
65.	Baling wire	59,000
66.	Cranes	55,000
67.	Timber packing cases	51,000

Specifications.—59 specifications were revised during the year and 60 new specifications were framed, of which 22 were for special classes of stores, the more important of these being :—

1. Road roller, steam operated, coal or wood fired. 2. Summer and winter uniforms for the staff of the East Indian Railway. 3. Sluice gates for the Panjnad Barrage on the river Sutlej, thirty-three gates clear width of opening 60 ft., 18 ft.-6 in. deep, for the Punjab Public Works Department. 4. Gates for the under-sluices of the weir across the river Damodar. 5. Steel barges of capacity up to 100 tons of stone for the Lloyd Barrage Works, Sukkur. 6. Hand chemical fire extinguishers.

Another specification which is worthy of special notice is that relating to safes for use in the Indian Posts and Telegraphs Department. Formerly the safes used by that Department were of European manufacture. The specification drawn up by this Department, however, enabled safes of Indian manufacture to compete with those manufactured abroad, and resulted in a

rate contract being placed with a manufacturer in India for the supply of the requirements in this respect of the Posts and Telegraphs Department for a period of two years."

ENCOURAGEMENT OF INDIAN INDUSTRIES AND LOCAL PURCHASES.

"*Registration of Firms at Headquarters.*—The potentialities of Indian sources of supply continued to be explored, and this investigation resulted in the addition of 326 firms to the Department's list of approved contractors and to the lists of firms maintained under the Rules for the supply of articles for the public service. The applications from 76 firms for registration were rejected on the ground of their unsuitability for enrolment; and on a review of the lists in the light of the experience of the past years it was decided to remove therefrom the names of 106 firms, as those were no longer considered to be of any practical use to the Department.

The following table indicates the total number of firms registered up to the end of the year distributed amongst the various provinces and classified according to the different descriptions of stores dealt with by them:—

	Bengal.	Bombay Presy.		Madras.	Punjab.	U.P.	Delhi.	Burma.	B. & O.	C.P.	Indian States.	N.W. F.P.	Total.
		Bombay.	Karachi.										
Railway materials	59	41	4	8	9	3	7	6	5	—	—	—	142
Hardware	86	55	15	12	15	23	15	9	3	—	7	—	240
Implements and tools	51	42	11	14	13	4	11	10	3	1	3	—	163
Metals	90	56	16	14	15	9	12	12	4	1	3	—	232
Mechanical equipment	147	129	12	32	23	12	18	29	4	—	6	—	412
Electrical „	92	63	12	21	14	13	15	11	3	—	3	—	247
Oils	42	35	7	12	8	5	5	9	—	—	4	—	127
Paints, colours, enamels and varnishes	51	44	11	13	8	1	4	7	1	—	4	—	144
Chemicals (excluding medicines and drugs) ...	38	16	5	3	3	3	3	3	—	—	1	—	75
Textiles—													
(*a*) Cotton materials	75	70	3	6	30	20	12	5	—	1	6	—	228
(*b*) Woollen „	26	21	2	5	10	13	2	2	1	—	5	1	88
(*c*) Jute, flax and hemp materials	58	25	4	1	11	5	—	3	1	1	—	—	109
Silk goods	—	—	—	—	—	1	—	—	—	—	—	—	1
Leather goods	17	9	—	2	6	15	1	3	—	—	1	—	54
Structural engineering	39	14	3	4	2	2	2	6	2	—	—	—	74
Miscellaneous stores	177	110	24	26	51	40	30	21	3	8	9	1	500
Medical, surgical and scientific stores and equipment (excluding medicines, chemicals and drugs)	11	3	—	1	1	2	—	—	—	—	—	—	18
Wireless stores	1	1	—	—	—	—	—	1	—	—	—	—	3
Mathematical drawing and surveying instruments and equipment	9	9	—	—	—	—	1	1	—	—	—	—	20
Total	1,069	743	129	174	219	171	138	138	30	12	52	2	2,877
Deduct overlapping figures for firms appearing for more than one item	613	402	81	116	87	51	75	69	21	3	21	—	1,539
Net total	456	341	48	58	132	120	63	69	9	9	31	2	1,338

Advice to Manufacturers.—The Department has continued its efforts to assist manufacturers in improving the quality of their products and bringing them up to the standards required by Government Departments.

The progress made in this direction since the formation of the Indian Stores Department as a result of its activities has been most gratifying, particularly in respect of textiles.

A few of the more important items which were imported from abroad in the past because they were not obtainable in India of the standards required and which are now purchased of Indian manufacture by the Indian Stores Department, are :—

	Articles.	Approximate value of annual purchases. Rs.
1.	Drill, kahki	10,60,000
2.	Putties, khaki, woollen	4,31,000
3.	Socks, woollen	5,30,000
4.	Felt for saddle panels	2,61,000
5.	Serge, miscellaneous, white lining	96,000
6.	Khaki jean for bandoliers	65,000

In addition the manufacture of the following items in India is being carefully nursed with a view to their total elimination from home indents at the earliest possible date :—

Engineering and Miscellaneous.

1. Battery jars.
2. Glassware, miscellaneous.
3. Locomotive cylinders.
4. Paint, white lead.
5. Stoneware.

Textiles.

6. Bunting cloth
7. Duck, cotton
8. Leather and oilcloth
9. Leather belting
10. Pagri cloth.
11. Greatcoat cloth
12. Serge drab mixture

In order to assist Indian manufacturers, trial orders for the last two items have already been placed with Indian mills at prices somewhat higher than those at which these materials can be obtained from abroad. It is anticipated that Indian manufacturers will be able, in due course of time, to produce these materials at rates which will compare favourably with those quoted by their foreign competitors and that it will be possible to obtain from Indian sources the full quantity of these materials required for the Army in India.

Scrutiny of Home Indents.—The number of indents on the India Store Department, London, which were examined during the year, amounted to 1,630 of an estimated value of Rs.7,65,40,013. Items to the aggregate value of Rs.15,66,392 were challenged, and as a result purchases to the value of Rs.1,86,955 were diverted to the Indian market, and assurances were received from indentors that items, the present requirements in respect of which aggregate Rs.5,32,325 in value at current rates, would, if required in future, be purchased in India. During 1926-27 the value of the items challenged amounted to Rs.76,57,000, and that of the purchases diverted to India to Rs.6,44,000. The reduction in the corresponding figures of 1927-28 is, it is believed, attributable to greater attention being paid to the resources of India by indenting departments."

Purchases of Railway Materials.—*Value of Railway Materials purchased in* 1926-27.—The last published report on Indian railways for 1926-27 deals exhaustively with the subject of stores purchases, and the following information has been extracted from it :—

The value of stores purchased by Indian Railways in 1926-27 fell from Rs.23·30 crores to Rs.23·14 crores, excluding coal, stone, bricks, lime, etc. There were increases in the total value under tools and stores (90 lakhs), permanent way (74 lakhs), electric plant (21 lakhs), engineers plant (26 lakhs), and workshop machinery (10 lakhs), but these increases were more than set off by a large decrease under rolling-stock (237 lakhs).

The value of indigenous materials rose from Rs.8·72 crores or 37·4 per cent. of the total to Rs.10·60 or 45·3 per cent. If coal, stone, bricks, lime, etc., are included the percentage comes to 55 per cent. The principal increases in indigenous materials were under " permanent way," the value of which advanced by over a crore of rupees and " tools and stores " which increased by 64 lakhs.

STATEMENT SHOWING VALUE OF STORES PURCHASED UNDER PRINCIPAL HEADINGS.

Headings.	Value of Imported Materials.			Value of indigenous materials.	Total purchases, 1926-27.	Total purchases, 1925-26.
	Purchased direct.	Purchased through Agents in India.	Total imported materials.			
	Rs. crores.	Rs. crores.	Rs. crores.	Rs. crores.	Rs. crores.	Rs. crores.
Rolling stock ...	3·27	0·69	3·96	0·83	4·79	7·16
Tools and stores ...	0·84	2·96	3·80	3·86	7·66	6·76
Permanent way ...	0·85	0·38	1·23	5·40	6·63	5·89
Electric plant ...	0·86	0·68	1·54	0·04	1·58	1·27
Building and station materials and fencing	0·24	0·37	0·61	0·25	0·86	0·92
Bridge work ...	0·28	0·05	0·33	0·17	0·50	0·54
Workshop machinery	0·42	0·27	0·69	0·01	0·70	0·60
Engineer's plant	0·21	0·17	0·38	0·04	0·42	0·16
Other materials* ...	—	—	—	4·89	4·89	—
Total ...	6·97	5·57	12·54	15·49	28·03	23·30

(*Other materials consist of coal, stone, lime and ballast, etc., and figures for 1925-26 are not available).

The purchases by Railways through the Indian Stores Department under principal heads were as follows :—

	(In thousands of rupees).
Textiles	26,02
Oils	11,96
Steel	8,24
Cement	7,31
Plant and machinery	6,64
Paints	2,60
Parts of rolling-stock	75
Roof material	67
Miscellaneous...	3,16
Total	67,35

It must be remembered, however, that the above figures of value of stores purchased do not take into account the very large expenditure in India on work done and materials manufactured in railway workshops. An attempt has been made this year to arrive at figures of this expenditure as well as the

cost of structural and other engineering works carried out " in situ." The figures include a certain amount of expenditure on the purchase of stores which is already included in the statement of value of railway materials purchased.

Cost of work done and materials manufactured in railway workshops.

		(In thousands of rupees).
1.	Construction of locomotives	61,88
2.	Construction of boilers	5,07
3.	Construction of coaching stock including underframes...	1,59,76
4.	Construction of goods stock including underframes	40,55
5.	Construction of spare parts of locomotives ...	1,34,68
6.	Construction of spare parts of coaching and goods stock	1,20,65
7.	Construction of other stores	1,15,78
8.	Work done for other departments, (*i.e.*) departments other than that supervising the Workshops ...	2,45,50
9.	Engineer's plant	45,38
10.	Permanent way	12,65
11.	Bridge work	31,32
12.	Other engineering works	4,04,93
		13,78,15

Cost of structural and other engineering works carried out " in situ."

	(In thousands of rupees).
Bridge work	94,53
Structural and other engineering works	3,49,74
	4,44,27

Purchase of Army Requirements.—As I stated in my last report, the Master-General of Supply is in general charge of purchases of military stores. The bulk of the imported stores contracted for in India are purchased by the Director of Contracts at Army Headquarters, Delhi/Simla. Textile stores are purchased by the Indian Stores Department, which now deals very largely with the engineering requirements of the Engineer-in-Chief's branch of Army Headquarters. The Deputy Director-General (Stores) of the Indian Medical Service purchases in India considerable quantities of drugs, medicines, dressings and surgical instruments and apparatus. Medical stores depots are maintained at Calcutta, Bombay, Madras, Lahore and Rangoon. Practically all other imported stores on Army account are obtained from the Director-General of the India Store Department, London.

Stores Purchased by the Department of Posts and Telegraphs.—Telegraph stores are the most important item. In his report for the year 1926-27, the Director-General of Posts and Telegraphs states that Rs.66,94,399 worth of stores were received into stock, Rs.95,08,177 were issued, leaving a closing balance of

Rs.97,21,041 on hand. Every endeavour was made to reduce the value of the stock balance with the result that it showed a decline of Rs.28,13,778 as a result of the year's working. The value of the stores purchased in India showed little change, but the value of stores obtained direct from England fell from Rs.13,69,000 to Rs.8,36,500.

The Indian Canteen Contractors Syndicate, Ltd.—In previous reports I have traced the formation, the brief and chequered career and the eventual liquidation of the Army Canteen Board (India). British purveyors of provisions and canteen stores will be interested to read the following note on the Indian Contractors Syndicate, Ltd., which has been specially written for the report by Mr. A. C. Murray, the Managing Director nominated by the Quartermaster-General, who has successfully carried through the formation of the Syndicate during the year, and who will remain in charge of its active management.

" The year 1928 will have been notable for very important developments in the system of canteen supplies to British troops in India. The failure of the Army Canteen Board (India), now dissolved, had in no way altered the conviction of the military authorities that the principle for which it stood was sound; in that it provided through peace an organisation immediately adaptable to conditions of war.

There, when it was decided to hand back once again the military canteens throughout India to the Regimental Contractors, who had been only partially displaced at the formation of the Army Canteen Board (India), it was with the very definite proviso that they must immediately form themselves into a co-operative society for the collective purchase and distribution of their principal canteen supplies. The machinery thus set up would be at the disposal then of Government, to take over and administer in time of war.

The Contractors on their part made immediate and loyal response, and if the preliminary work of organisation has seemed slow, the problems encountered have been sufficiently complex.

The Canteen Contractors Syndicate, Limited, which is the outcome, is in many ways unique among commercial companies. Its capital is assured since every contractor holding an Institute contract in India is bound to take up shares in the Syndicate to the assessed value of that particular canteen. Assessments are graded according to the types of troops and relative rates of pay, of the rank and file.

Shares form virtually part of the stock-in-trade of the Institute. They may not be disposed of, except by transfer to an incoming Contractor taking over the Institute. At the expiry of a contract they may not be retained.

The Syndicate's turnover is assured to it by the undertaking every Contractor must enter into with the Army Authorities, that he will obtain through it, and only through it, all his requirements of those goods which are marked in the Syndicate's price lists as " compulsory " supplies. These comprise principally foodstuffs, cleaning materials and other articles, in the quality and freshness of which the troops are directly concerned.

Any Contractor not conforming to such undertaking, or in other ways jeopardising the interests of his fellow-shareholders, may be reported to the Quartermaster General in India, for his name to be struck off the official list of approved Contractors, from which Officers Commanding may only make selection. The contracts held by the defaulting Contractor would then be terminated and he would be disqualified for the future from treating for others.

The moral and actual support thus given by Government to the Syndicate is extremely valuable and makes the proposition exceptionally sound.

The Syndicate is actually a buying agency, placing orders on suppliers in fulfilment of definite indents from its customer-shareholders, who must buy through it and from no other source. There is small wonder therefore that manufacturers throughout the world have been keen to obtain a share of its trade. The field now opened for development by direct supply is an important one. There are in all some 160 military institutes in India, comprising barrack grocery-shops, as well as refreshment bars and operated by about 85 contracting firms. The greater percentage of the latter, it will be seen, possess only single units. A few multiple-contractors control a dozen or more institutes. Only a very small proportion of these are already importers of their requirements. It will thus be realised to what degree the greater number of members must benefit immediately under the new system of co-operative purchase.

Briefly the aim of the Syndicate is to provide its members with goods at cheapest possible cost, warehouse expenses merely being charged, plus a margin to provide a dividend limited to 6 per cent. on paid-up capital. The price for each article will be common throughout, regardless of the quantity ordered, and any quantity will be supplied.

The advantage to the small Contractor under this arrangement is obvious. And here it may be said that the average Commanding Officer prefers to have his own Contractor always at his beck and call. Where he has employed one of the larger multiple firms, it has been because of their superior organisation and the better service they have been able to ensure in consequence.

The small Contractor in the matter of service has suffered severe handicap. His requirements being limited he has had to pay top-price for his goods. Generally to secure discount and justify frieght, packing and octroi charges, he has been led to order quantities larger than demand justified. His limited capital, in consequence, has been locked up in stock deteriorating on his shelves.

The Syndicate by supplying at bedrock price, only his precise requirements, punctually each month, will help to release that needed capital, enabling him to increase the range of articles wherewith to tempt additional custom.

To encourage and assist him in such development, he will have before him each month the price lists of the Syndicate, giving him what he may be assured are the best prices obtainable, and such as he individually could never approach. Mental effort is spared to him. A customer's enquiry for some new line not stocked, can be satisfied at a glance. For though the Syndicate's price lists will enumerate those lines which it is compulsory to buy only from it, they will include also a great number of articles in common demand, which it is prepared to supply at most favourable terms by arrangement with wholesale firms in India.

The system generally on which the Syndicate will trade is c.i.f. against documents at Karachi or Bombay. The Main Depot and Head Offices will be at the former port. Orders will be placed on suppliers in due time to enable first issues to be made to members in January, 1929.

The Chairman of the Company is the Hon. Sir Phiroze C. Sethna, O.B.E., Bombay. Member of the Legislative Council, who was also a member of the Commission of enquiry set up to investigate the affairs of the Army Canteen Board (India), and of the Skeen Committee. Sir Phiroze has no interest otherwise, nor connection with the Canteen Contracting business. He brings to bear the fresh view of an independent business expert on the Syndicate's problems.

The Managing Director, nominated by the Quartermaster-General for the Government of India, is Mr. A. C. Murray, formerly of the Navy, Army and Air Force Institutes, England, who was loaned by that Corporation to carry out the liquidation of the Army Canteen Board.

The Syndicate's Bankers are the Imperial Bank of India; its Auditors, Messrs. Fergusson & Co., Bombay; and its Solicitors, Messrs. Crawford, Bayley & Co., Bombay.

Its nominal capital is Rs.25 lakhs. Its working capital Rs.20 lakhs, of which Rs.15 lakhs will be immediately called up.

Head Office: Postal Address—Post Box 113, Karachi. Telegrams—"Cansind"—Karachi. Code: Bentley's."

CHAPTER III.

REVIEW OF THE ACTIVITIES OF THE INDIAN TARIFF BOARD DURING THE YEAR.

In previous reports will be found an account of the steps which led to the adoption by the Government of India of the policy of discriminating protection. I have also described the previous inquiries by the Tariff Board into the steel, cotton and other industries. In the present chapter I propose to give an account of the inquiries made during the past year into the wagon-building and other subsidiary branches of the steel industry and into the belting, plywood and printing paper industries.

STATUTORY INQUIRY INTO THE STEEL INDUSTRY.

I. Report of the Indian Tariff Board regarding the grant of protection to the manufacture of wagons and underframes.—In the Government of India resolution of April 3rd, 1926, it was laid down that the Board would be at liberty to examine the claims for protection of industries making steel products which did not come within the scope of the Steel Industry (Protection) Act, 1924, and to report whether, having regard to the principles laid down in paragraph 97 of the report of the Indian Fiscal Commission, such claims should be admitted. The inquiry into the wagon industry was completed in 1926, but the report was not signed until June, 1927, owing to the difficulty of assessing costs of production at a time when the railways were not placing any orders for broad-gauge wagons and owing to the negotiations which were proceeding for the purchase by Government of one or more of the works.

Summary of the Board's recommendations.—

" (1) We find that under the stimulus of the bounty scheme which has been in force during the last three years, the wagon industry (in which term we include also the construction of underframes) has made great progress, and is now able to meet a large proportion of the normal demand for wagons and underframes in India.

(2) As a consequence partly of the reduction in the cost of material but largely of the decrease in costs resulting from large orders for a few standard types of wagons, the wagon manufacturers have now reached a stage when they could normally withstand foreign competition with no assistance other than the existing revenue duty.

(3) We, therefore, recommend that the system of bounties should be abandoned and that no increase be made in the existing duty on wagons and underframes.

(4) Owing to improvements in railway administration, it has proved possible to reduce the requirements of the railways in respect of new broad gauge wagons, and it will probably be unnecessary to place orders for this class of wagon for three years and possibly longer.

(5) Orders for considerable numbers of wagons have been placed abroad in recent years. In regard to such orders placed before 1925-26, the Indian Wagon Industry has apparently no ground for complaint. But in view of the rapid growth of the industry in 1925 and the possibility of a large reduction in the demand for broad gauge wagons as indicated by the figures of surplus

wagons in July, 1925, we consider that, in the interests of the wagon industry in India, the orders for about 1,450 broad gauge wagons which were placed abroad in December, 1925, might well have been withheld and placed later with Indian firms.

(6) It does not seem, however, that the present situation could have been entirely averted even if no orders had been placed abroad in 1925, though the position would have been considerably improved.

(7) Special measures have been taken temporarily to meet the present situation. The Peninsular Locomotive Company's works have been acquired and sufficient orders for miscellaneous wagons and underframes have been placed for 1927-28, with the remaining firms to keep their works in operation.

(8) The restriction in the demand for broad gauge wagons will continue for some years, and until normal conditions return, the wagon companies will be in a difficult position. We consider that during this period, steps should be taken to assist the industry.

(9) We recommend that until the demand for wagons and underframes in India reaches a total of 5,000 annually in terms of C-2 wagons, all orders should be placed in India by competitive tender from Indian manufacturers.

(10) The absence of foreign competition and the fact that there are now only three firms manufacturing wagons in India of which two are under the same management make it desirable to fix maximum prices within which tenders will be accepted.

(11) We recommend that subject to minor adjustments, such maximum prices be fixed at the level of the lowest approved c.i.f. price as shown in the tenders for wagons in November, 1925, and for underframes in April, 1926. To these prices an addition of 12½ per cent. must be made, and the appropriate charges for landing, wharfage, etc., and erection, must also be added.

(12) In view of the costs of wagon manufacture as shown in this report, it is desirable that the question of the extent to which it is advisable to anticipate future requirements for wagons and underframes or to replace old rolling stock should be reconsidered.

(13) We are unable to support the claim of the Bombay, Baroda and Central India Railway that they should be permitted to import material for building wagons at 10 per cent. *ad valorem* duty. As regards the application of the same railway that material for the construction of locomotives should be imported at a 2½ per cent. *ad valorem* duty, we are not in a position to make any recommendation.

(14) We consider that when the normal demand for rolling stock revives, the system of restricting orders to the capacity of the firm tendering, as certified by the Indian Stores Department, should cease, but that adequate penalties should be provided and enforced for late delivery."

Decision of the Government of India.—The decision of the Government of India was announced in Resolution No. 260-T (92) of the 25th February, 1928, and reads as follows:—

" The Government of India accept the findings of the Board that, given a sufficiency of orders, the railway wagon and underframe industry no longer requires any assistance beyond the existing revenue duty, and that the continuance of the bounty scheme, which has been in force during the last three years is unnecessary. They also agree with the Board that, owing to the probable restriction in the normal demand for wagons during the next two or three years consequent on improvements in railway administration, assistance should be given to the industry during this period by taking special steps to secure that, if possible, all the available orders are placed in India.

The Board recommend that until the demand for wagons again becomes normal, tenders should be called for only in India and accepted if within a certain maximum price. The maximum price proposed for each type of wagon is the lowest approved price as shown in the tenders for wagons in

November, 1925, and for underframes in April, 1926, *plus* an addition of 12½ per cent. and the appropriate charges for landing, wharfage, etc., and erection. The Government of India are unable to accept this recommendation as it stands. The 12½ per cent. addition is appropriate only if the total orders to be placed during the year are sufficient to keep the wagon building firms working to 60 per cent. of capacity, and would be too low if the orders fell short of this figure. For this reason and also on account of certain practical difficulties the Government of India have decided to adopt the following modified arrangement. Tenders in the first instance will be called for only in India, and the lowest tender accepted provided it is regarded as reasonable. In determining whether the price tendered is reasonable, comparison will be made with the basic price of 1925 in respect of wagons and of 1926 in respect of underframes and allowances will be made either upwards or downwards for variations in steel prices and for the size of the orders to be placed. If the prices tendered are found to be unreasonably high for any type of wagon, the wagon building firms will be informed of the maximum price which the Government of India are prepared to pay, and will be given an opportunity of accepting the order at that price. If they are unwilling to do so, simultaneous tenders will be called for in England and in India.

The necessity for assisting the industry, however, arises from the fact that with simultaneous tenders and a ten per cent. duty there is a serious danger that the orders will be lost to Indian firms. The Government of India have, therefore, decided that the rate of duty on wagons and underframes and their component parts, other than wheels, axles, vacuum brakes and certain other component parts which are not made in India, should be raised to the rates applicable to fabricated steel generally, nanely, 17 per cent. *ad valorem* if of British manufacture, and 17 per cent. *ad valorem plus* Rs.15 per ton if not of British manufacture. It is proposed that the increase in the duty should have effect for three years only, as it is hoped that at the end of that period it may again be possible to place orders on a normal scale."

Opposition in the Assembly.—When the Bill was referred to a Select Committee of the Legislature during the February-March Session, 1928, strong opposition was encountered. The Committee did not feel justified in agreeing to the Government proposals to raise the duties on the grounds that the measure of protection proposed in the Bill was in excess of the recommendation of the Tariff Board. They stated :—

" In our opinion any proposal to increase the measure of protection recommended by the Board must be supported by strong reasons ; and after carefully considering the reasons given by the Government in this instance, we have come to the conclusion that they are not strong enough . . . we think it advisable to maintain the existing revenue duty of 10 per cent. and to arrange that all orders are placed in India."

The Bill, as amended by the Select Committee, was duly passed and the duty on wagons remains unchanged.

II. Component Parts of Wagons and Underframes.—(*a*) *Forgings.*—The Tariff Board conclusions were as follows :—

" (1) We consider that the manufacture of forgings should be regarded at present as merely a process incidental to the construction of wagons and not as a separate industry. It follows that when the demand for wagons is normal, the same duty should be imposed on imported forgings as on wagons and underframes.

(2) We think it important, however, during the next few years when the demand for broad gauge wagons will be small, and consequently the market

for wagon forgings restricted, that orders for forgings as spare parts should continue to be placed in India as far as possible, and that in comparing Indian with foreign prices an allowance of 2½ per cent. above the revenue duty should be made."

The Government of India in their resolution accepted the finding and decided that forgings, other than wheels, axles, vacuum brakes and certain other component parts which are not made in India, should be subject to the proposed increased duty as component parts of wagons and underframes.

This proposal to increase the duty on forgings was opposed by the Select Committee as it was a corollary to the duty on wagons. The import duty therefore remains unchanged.

(*b*) *Steel Castings and Spring Steel.*—The Tariff Board recommendations were as follows:—

" (1) In our first inquiry we were unable to determine the extent of the market for steel castings and accordingly made no recommendation for protection in respect of this industry. We now find that the annual demand for steel castings is sufficient to permit of an economic output. We consider, therefore, that a good case has been made out for protection.

(2) In our opinion the best and most economical method of extending help to the industry is by means of a bounty.

(3) We accordingly recommend that on all steel castings manufactured by the Hukumchand Electric Steel Works for railway wagons, underframes and locomotives during the period October 1st, 1927, to September 30th, 1930, a bounty of Rs.2-8-0 per cwt. be paid to the Company, subject to a maximum of Rs.1,80,000 for the whole period.

(4) We recommend that subject to this maximum no restriction be placed upon the amount to be paid in any one year.

(5) We have not proposed any bounty on the manufacture of general engineering castings partly for administrative reasons but mainly because the evidence indicates that a somewhat higher level of prices is as a rule obtainable for these.

(6) Spring steel is as yet not manufactured on a commercial basis and we have not been able to obtain information as to the cost of production sufficiently reliable to justify an estimate of the protection necessary. We have therefore no recommendation to make in respect of spring steel."

Decision of the Government of India.—The Government of India, in their resolution of February 25th, announce their decision in the following terms:—

" The Tariff Board recomemnd the payment of a bounty of Rs.2-8-0 per cwt. on steel castings manufactured by the Hukumchand Electric Steel Works for railway rolling stock. It has been ascertained however, that besides the Hukumchand Electric Steel Works there is at least one firm, namely, the Kumardhubi Engineering Works, which is equipped to produce steel castings from indigenous materials and is thus not disqualified from earning the bounty proposed. It also appears from the Board's own figures that the effective railway demand is barely sufficient to keep one firm fully employed, so that with two firms in the field, it would not be possible for either to obtain sufficient orders to bring down costs to an economic level, especially as some of the railways manufacture in part their own requirements. In these circumstances the Government of India are of opinion that the conditions justifying protection for the manufacture of steel castings do not yet exist and they are therefore unable to accept the bounty scheme recommended by the Board. The higher duty on the component parts of wagons and underframes will in fact give the

makers of steel castings for the next three years a large part of the protection considered necessary by the Tariff Board. But the Government of India wish to make it clear first that the increase in the duty on castings is incidental to the increase in the duty on wagons and underframes and would not have been proposed on its own merits; secondly that steel castings have been made in the railway workshops for a number of years and that it is not intended to discontinue their manufacture; and thirdly that it is not the intention of Government to continue the protective duty on wagon castings when it again becomes possible to place normal orders for wagons.

The Tariff Board have no recommendation to make in respect of spring steel as it is not manufactured on a commercial basis, and reliable information is not available, on which an estimate of the protection necessary could be based. The Government of India accept this finding."

(*c*) *Bolts and Nuts.*—The Tariff Board conclusions were as follows:—

"(1) Bolts and nuts are at present produced in comparatively small quantities and we consider that present costs are no guide to the amount of protection required if large scale production were undertaken.

(2) There appears to us, however, to be good ground for the removal of the inequality of tariff treatment as between the Indian manufacturer and his foreign competitors which exists under the present Tariff Schedule.

(3) We, therefore, recommend that on all bolts and nuts falling under Article 61 of the Statutory Tariff Schedule a specific duty of Rs.2 per cwt. be levied in place of an *ad valorem* duty of 10 per cent."

The Government of India accepted the recommendation of the Board that on all bolts and nuts falling under Article 61 of the Statutory Tariff Schedule a specific duty of Rs.2 per cwt. should be levied in place of the existing duty of 10 per cent. The Select Committee concurred in the proposal and the new duty was embodied in the Steel Industry (Protection) Act, 1928.

III. Wire and Wire Nails.—The Tariff Board reported as follows:—

"(1) It appears that the main raw material for the manufacture of wire and wire nails, namely wire rod, will not be produced in India for at least three years, and consequently the industry fails to qualify for protection.

(2) Further, the only company which at present manufactures wire in India is the Indian Steel Wire Products Limited, and the debenture holders have applied to the Trustees that the Company should be put into liquidation.

(3) We, therefore, recommend that the protective duty on wire and wire nails be discontinued.

(4) We consider, however, that when the manufacture of wire rod on a commercial scale is established in India, the question may be reconsidered."

The Government of India accepted the recommendations of the Board, the Select Committee concurred and the protective duty of Rs.60 per ton on certain kinds of iron and steel wire has been removed from the schedule.

INQUIRY INTO THE QUESTION OF TARIFF EQUALITY IN RESPECT OF THE MANUFACTURE OF CAMEL HAIR, COTTON AND CANVAS PLY BELTING.

This was an inquiry in pursuance of Resolution 38-T (2) of the 28th March, 1925, in which reference was made to the Tariff

Board of representations to the effect that the development of certain industries in India was being hampered by the fact that the import duty on the finished article was lower than the import duty on the materials which have to be imported for the manufacture of that article. The applicants in regard to camel hair belting were Messrs. Birkmyre Bros., of Calcutta; in regard to cotton belting, Messrs. Birkmyre Bros. and the Bengal Belting Works, Calcutta; and in regard to canvas ply belting, Messrs. Tyabji & Company, of Rangoon.

After careful investigation the Board concluded that a good case for tariff equality had been established and made the following recommendations :—

Cotton Belting. The 15 per cent. *ad valorem* duty on imported black proofing should be abolished and duty of 5 per cent. *ad valorem* should be imported on cotton belting.

Hair Belting. The 15 per cent. *ad valorem* duty on imported black proofing should be abolished and the duty on imported camel hair yarn should be reduced from 15 per cent. to 6 per cent. *ad valorem* and a duty of 5 per cent. *ad valorem* should be imposed on imported hair belting.

Canvas Ply Belting. A duty of 5 per cent. *ad valorem* should be imposed on imported canvas ply belting.

Decision of the Government of India.—In their Resolution No. 38-T (4) of the 10th February, 1928, the Government of India accepted the Board's recommendation that a duty of 5 per cent. *ad valorem* should be imposed on imported cotton, camel hair and canvas ply belting. They found it impossible, however, to accept the Board's proposal that the duty on black proofing should be removed, but they decided that the duty on camel hair yarn should be reduced from 15 per cent. to 5 per cent., instead of 6 per cent. as recommended by the Board.

The above proposals were approved by the Legislature and were duly embodied in the Indian Tariff (Amendment) Act, 1928, which was passed in March, 1928.

INQUIRY INTO THE PLYWOOD AND TEA CHEST INDUSTRY.

The subject of this inquiry was referred to the Board by the Government of India under Resolution 483-T of the 26th May, 1927, the terms of reference being as follows :—

" (1) The Assam Saw Mills and Timber Company, Limited, and the Assam Railways and Trading Company, Limited, have requested the Government of India to refer to the Tariff Board for inquiry the question whether the Plywood and Tea Chest industry in India should be protected.

(2) There was no import duty on tea chests and lead sheets for tea chests until 1916. A duty of 2½ per cent. was imposed in 1916 for revenue purposes, and this was raised in 1923 to the general rate of 15 per cent. It was then recognised that this increase of duty would incidentally assist the manufacture of tea chests in India, but an assurance was given by the Honourable the Commerce Member in the Legislative Assembly that an increase of duty would not have been proposed for protective purposes without a previous investigation by the Tariff Board.

(3) Imported tea chests and lead sheets for tea chests are ordinarily re-exported as containers for Indian tea and are then entitled to a refund of seven-eighths of the import duty under Chapter VI of the Sea Customs Act, provided that they are identified to the satisfaction of the Collector of Customs, and that the re-export is made within two years from the date of importation. Such identification may sometimes be possible, but would cause much trouble and delay both to the Customs administration and to the re-exporter. In view of the special circumstance that tea chests and lead sheets for tea chests are ordinarily imported for the purpose of subsequent re-export, the continuance of a revenue duty may be open to objection.

(4) The Government of India have therefore decided to refer the following questions to the Tariff Board ;—

(i) Whether, having regard to the principles laid down in the resolution adopted by the Legislative Assembly on the 16th February, 1923, the plywood and tea chests industry should be protected ;

(ii) If so, in what form and for what period protection should be given ;

(iii) If not, whether, in view of the fact that tea chests and lead sheets for the chests are ordinarily imported for the purpose of re-export, the existing import duty of 15 per cent. should be continued."

Conclusions of the Board.—The Board summarised their findings and conclusions in the following terms :—

" (1) All the raw materials for the manufacture of plywood and of tea chests are available in sufficient quantities in India.

(2) The other conditions laid down by the Fiscal Commission are also satisfied. It does not, however, appear that the manufacture of plywood products other than tea chests requires any assistance at present.

(3) Such products, however, constitute a very small portion of the outturn of the existing factories which are mainly engaged in the manufacture of tea chests. Very severe competition has been experienced in recent years in Northern India from imported tea chests, and without some form of assistance the plywood factories will be forced to suspend manufacture.

(4) We are satisfied that if adequate support is now granted, the industry will be able to stand without protection within a reasonable period.

(5) We find that the fair selling price of a tea chest 19in. by 19in. by 24in. in India on a production of 5,00,000 chests annually may be estimated at Rs.2-15-6·4.

(6) We find the price of imported chests of the same dimensions (without duty) f.o.r. Calcutta is Rs.2-6-10·8.

(7) Allowing for the freight advantage of imported chests to the tea gardens, we find the adjusted import price comparable to the fair selling price of Indian chests is Rs.2-5-7·8.

(8) The difference bteween the fair selling price and the adjusted import price, viz., 9 annas 10·6 pies, represents the measure of protection which we consider necessary subject to slight further adjustment.

(9) We recommend that the present import duty on all plywood articles other than tea chests and rubber boxes should remain unchanged at 15 per cent. *ad valorem.*

(10) The duty on fittings of tea chests and rubber boxes and the linings of tea chests should remain unchanged at 15 per cent. *ad valorem.*

(11) The import duty on the plywood panels and battens of tea chests and rubber boxes should be abolished.

(12) A specific export duty should be imposed on tea chests other than those of which the plywood panels are of Indian manufacture.

(13) The export duty should be at the rate of 6 annas 6 pies per 100 lbs. of tea exported in chests of which the plywood panels are not of Indian manufacture.

(14) Of this sum 4½ annas per 100 lbs. of tea might be made over to the Indian Tea Cess Committee and the cess leviable under the Indian Tea Cess Act be reduced by 3 annas per 100 lbs. of tea.

(15) The views of the plywood companies should be considered by local Governments in connection with the enumeration or planting of trees suitable for the plywood industry.

(16) Steps should be taken to extend and improve the facilities for research at the Forest Research Institute, Dehra Dun, in connection with the manufacture of plywood. Local Governments should co-operate with the Institute in its investigations, especially as regards the suitability for the manufacture of ornamental plywood of trees available in sufficient quantities.

(17) The specifications for opium chests should be drawn up by the Opium Department in consultation with the Indian Stores Department and the Indian plywood manufacturers in such a way as to ensure that, so far as possible, effect is given to Govenment's policy of encouraging Indian industries.

(18) The period of protection should be fixed at five years.

(19) Since the season for the import of tea chests commences in November, early action should be taken to abolish the import duty on tea chest panels, so as to avoid the possibility of double taxation."

Decision of the Government of India.—The Board's report was published on February 16th, 1928, and on February 18th of this year the Government of India in their Resolution No. 483-T (4) made the following public statement of their views :—

" The Government of India accept the findings of the Tariff Board :— (*a*) that the manufacture of plywood tea chests should be protected ; (*b*) that the protection required by the industry is 7 annas 9·6 pies per standard chest (excluding fittings and linings) ; and (*c*) that the protection given should be continued for a period of five years.

The Board have recommended that protection should be given by means of an export duty on all tea packed in chests which are not made in India. The Government of India consider the proposed method would lead to undesirable complications and they are unable to approve the imposition of an export duty for protective purposes. At the same time they are of opinion that the Board attached undue weight to the objections to the grant of protection by means of an import duty. The additional burden imposed on the tea industry by the duty will not be a heavy one, and where protection is the object to be attained and not revenue, the refusal of a drawback on re-export is not in their view open to objection in principle. They have therefore decided to introduce legislation imposing a duty of 30 per cent. on all forms of plywood and on battens and corner pieces of plywood chests, and abolishing the drawback at present admissible under the Sea Customs Act, 1878, on re-export. The 30 per cent. duty will in effect give the same amount of protection as was recommended by the Board. It is proposed for reasons of convenience in the Customs administration to apply it to all forms of plywood but the imports, other than tea chests, are very small and the Government agree with the Board that if they alone were in question no protection would be needed.

The subsidiary recommendations of the Tariff Board are under the consideration of the Government of India and will, where necessary, be brought to the notice of the local Governments concerned."

Almost immediately after the publication of the above decision the Government of India, on March 1st, 1928, introduced into the Assembly :—

The Plywood Industry (Protection) Bill.—The Bill proposed to increase the customs duty on plywood boards, panels and chests, and battens and corner pieces, such as are ordinarily used in plywood chests, from 15 to 30 per cent. It also proposed to abolish the drawback at present permissible on the re-export of imported chests. In introducing the Bill, Sir George Rainy, Hon. Member for Commerce and Railways, stated that as some members of the House felt that the time since the publication of the Tariff Board Report and the announcement of the decision of the Government of India had been too short to make it possible for them to deal adequately with the Bill if it were taken into consideration at once, Government did not propose to move for its consideration. The Bill will therefore come up for consideration at a later date. Meanwhile, very strong protests have been made by the leading bodies interested in the tea trade, e.g. the Indian Tea Association and the Bengal Chamber of Commerce.

REPORT OF THE INDIAN TARIFF BOARD REGARDING THE CHANGES IN THE TARIFF ENTRIES RELATING TO PRINTING PAPER.

In their Resolution No. 202-T (16) of the 19th May, 1927, the Government of India made the following reference to the Board :—

" The Tariff Board in their report on the grant of protection to the paper and paper pulp industries recommended that " newsprint " should be excluded from the protective duty of one anna per lb., and should continue to be liable only to the revenue duty of 15 per cent. *ad valorem.* The evidence taken by the Board satisfied them that the newsprint commonly imported contained about 70 per cent. of mechanical wood pulp, and they proposed that for tariff purposes newsprint should be defined as " printing paper containing not less than 65 per cent. of mechancial wood pulp," the intention clearly being to exempt from the protective duty the newsprint commonly imported. Effect was given to the Board's recommendation in the Bamboo Paper Industry (Protection) Act, 1925.

A question was recently raised whether the percentage should be calculated on the total weight of the paper, or on the weight of its fibre content, and the Government of India ruled that according to the wording of the Tariff Schedule the percentage must be calculated on the total weight of the paper. It has, however, been represented by importers that, if the law must be interpreted in this way, the effect will be to bring within the scope of the protective duty large quantities of imported newsprint which it was the intention of the Legislature to exclude. The Government of India have therefore decided to ask the Tariff Board to report whether any, and if so what, changes are desirable in those entries in the Tariff Schedule which regulate the duty payable on newsprint."

Recommendations of the Board.—After careful consideration of the evidence adduced both by importing interests and also by the Indian paper industry, the Board recommended that the relevant Tariff Schedule should be framed as follows :—

Entry No.	———	Per.	Duty.
99	———	Un-changed	—
155	Printing paper (excluding chrome, marble, flint, poster and stereo) all sorts containing no mechanical wood pulp or in which the mechanical wood pulp amounts to less than 65 per cent. of the fibre content.	lb.	One anna.
156	Writing paper—		
	(*a*) Ruled or printed forms (including letter paper with printed headings) and account and manuscript books and binding thereof.	lb.	One anna or 15 per cent. *ad valorem* whichever is higher.
	(*b*) All other sorts	lb.	One anna.

These proposals were accepted by the Government of India and were embodied in the Bamboo Paper Industry Protection Bill, which was passed during the September Session of 1927.

INQUIRY INTO THE MATCH INDUSTRY.

In Resolution No. 235-T (14) of the 2nd October, 1926, the Government of India made the following reference to the Tariff Board :—

" The present rate of duty on matches imported from abroad is Rs.1-8-0 per gross, which represents a duty of more than 100 per cent. *ad valorem*. The duty was raised to the above figure purely as a revenue measure, and the Government of India have consistently rejected requests from manufacturers in India that the duty should be declared a protective duty. Nevertheless, a high revenue duty naturally has a protective effect, and since 1922, when the present duty was imposed, numerous match factories have been established in India, some of them using indigenous woods, and others wood imported in the log from abroad. Concurrently, that has been a progressive decline in the Customs revenue derived from matches. This revenue amounted to Rs.154 lakhs in 1922-23 and Rs.138 lakhs in 1923-24, but in 1925-26 it amounted (inclusive of the revenue from splints and veneers) only to Rs.118 lakhs. As the Indian factories overcome technical difficulties and attain their full production, the decrease in customs revenue is likely to become more serious.

In these circumstances, the Government of India consider that the whole position requires investigation, and they have decided to entrust this task to the Tariff Board. The first point for inquiry is whether the three conditions laid down in paragraph 97 of the Report of the Indian Fiscal Commission are satisfied in the case of the match industry in India, and whether the industry should be protected. If the answer to this question is in the affirmative, the Tariff Board will report at what rate the import duty should be fixed in order to give the industry the protection it requires and whether alternative measures of protection could suitably be adopted. If the answer is in the negative, the Government of India theoretically will be free to lower the import duty on matches in the interests both of the consumer and their own revenue from this source. But the Tariff Board will report to what extent

vested interests have been created in India as the result of the present rate of duty, how far those vested interests require consideration and what prospect there is of the match industry in India establishing itself, if the present rate of duty is maintained. If the Tariff Board decides that consideration must be paid to the industry brought into existence by the present rate of duty and that the duty should be maintained at the present figure, or approximately at the present figure, it will further report whether the loss of customs revenue can be made up in whole or in part by any other appropriate form of taxation of the industry. In this connection, the attention of the Board is drawn to the remarks of the Honourable Commerce Member on the 24th March, 1924, in the Council of State. Generally the Tariff Board will investigate the whole question and make such recommendations as seem germane to the subject."

The Board were engaged during the greater part of 1927 and the beginning of 1928 in investigating this most intricate and difficult question. Their report has been submitted to Government but is still (June, 1928), under consideration by Commerce Department. Neither the report nor the decision of the Government of India has yet been published.

INQUIRY INTO THE OIL INDUSTRY.

On the 26th March, 1928, the Government of India, in their Resolution No. 141-T (39), made the following reference to the Tariff Board :—

" The Government of India have received representations from a number of companies engaged in the production of petroleum in India asking for protection against the injury inflicted on them by the kerosene price war now in progress in India between the Standard Oil Company of New York and the Royal Dutch Sheel group. The immediate cause of the price war is said to be the purchase by the Standard Oil Company of New York from the Soviet Government of Russia of kerosene which, as the Royal Dutch Shell group claim, rightfully belongs, wholly or in part, to them. The companies state that as a result of the price war, kerosene is being sold at prices well below world parity, and it is from the serious losses consequent on these uneconomic prices that they ask for protection. The representations indicate that, while some of the producers do not regard their existence as threatened by the dispute, the position of the weaker companies is such that a continuance of the price war might lead to their extinction.

The Government of India are not prepared to agree to any scheme of protection which would lay a heavy burden on the consumers, if the result must be, so far as the principal producers are concerned, not to secure a moderate return on the capital invested in the business but to increase profits unnecessarily. It is possible, however, that measures could be devised by which substantial relief could be given to those companies which are most in need of it, while at the same time a disproportionate share of the higher price paid by the consumer would not pass into the hands of the stronger firms.

In order that this question may be examined, the Government of India consider that an immediate inquiry should be held by the Tariff Board with the following terms of reference :—

(1) To determine what price for kerosene should be taken to be equivalent to world parity at Indian ports, and the extent to which current prices in India are below that level.

(2) To report whether it is in the national interest that protection against the dumping of imported kerosene should be given, and if so, in what form and for what period ; and

(3) To report whether it is likely that the price war will extend to petrol, what the consequences to the Indian producers are likely to be if it does, and in that case what measures they would recommend.

The question to be investigated in the inquiry is the advisibility of taking steps to safeguard an Indian industry from injury inflicted by dumping, that is, the sale of imported kerosene in India at prices below world parity. In these circumstances, the Government of India consider that no detailed examination of the costs of production will be necessary, and that it will suffice to ascertain by more summary methods the probable effect of the price war on the financial position of the Indian producers. The report of the Tariff Board should reach the Government of India at the earliest possible date, and in any case not later than the 1st July, 1928."

The Board have completed their investigations but, at the time of writing (June, 1928), their report has not been published. Meanwhile it is understood that the British and American oil interests have arrived at an understanding and the prices of kerosene have advanced six annas per unit of eight gallons.

CHAPTER IV.

AN ACCOUNT OF THE PROGRESS MADE DURING THE PAST YEAR IN CERTAIN OF THE MORE IMPORTANT IRRIGATION, HARBOUR, HYDRO-ELECTRIC AND OTHER PROJECTS IN INDIA.

1. IRRIGATION.

Punjab. —I am indebted to the Chief Engineer, Irrigation Works, Punjab, for the following progress report on the several irrigation works, either under construction or projected, in the Punjab :—

Sutlej Valley.—The last report gave progress up to June, 1927. The information below carries us on to June, 1928 :—

Headworks and Canals.

Ferozepore.—The headworks were completed in 1927, and His Excellency the Viceroy presided at the opening ceremony in October, 1927.

In addition to a weir the river is completely controlled by counter-balanced gates, and the bridge provides for the main broad gauge State Railway connecting Bombay with Peshawar, for which the girders are now being laid. The three canals, the Bikaner and Eastern Canals on the left bank, and the Dipalpur Canal on the right bank are complete, and the distributary system is being extended to cover the whole area commanded by this headwork.

Suliemanke.—These headworks were completed and formally opened by His Excellency the Governor of the Punjab in April, 1926. This weir is also designed to take a broad gauge line of the North-Western Railway, combined with an eighteen feet wide public road, which provide a most important link in railway and road system of the Punjab.

Irrigation has commenced on all the three canals, which are supplied from this headwork. A considerable amount of work remains to be done on the distributary system of the Eastern Sadiqia Canal, which irrigates a waterless tract of land in Bahawalpur State, where work was hampered by lack of water until the Canal was opened.

The distributary systems of the Fordwah Canal, also of Bahawalpur, and of the Pakpattan Canal, except for extensions which are gradually being carried out, can be considered complete.

Islam.—The formal opening of the headworks by His Excellency the Viceroy took place in October, 1927. The Qaimpur and Bahawal Canals of Bahawalpur State on the left bank, and the Mailsi Canal on the right bank, for British Territory, take their water from this headwork. The construction of the Qaimpur Canal is well advanced and irrigation has commenced on this Canal, as also on the Mailsi Canal.

The Bahawal Canal construction has proceeded slowly waiting for water which could only be supplied after the completion of the headworks. Now water has been supplied the progress will be quickened up. Work on the distributary systems are well in hand.

Panjnad.—This is the fourth and only weir remaining to be constructed. The design was considered in 1926-27 for the first time, and by the end of the year 1927 the Canal Railway to the weir, the protection bunds for the weir area, and the buildings for the staff had been completed. The excavation for the foundations of the weir was commenced in the cold weather of 1927, and work is well up to programme. Work on the Abbasia Canal started in 1926-27 and is progressing satisfactorily.

The digging of the Panjnad Canal, which is the largest canal in the project, was commenced in October, 1927, and very rapid progress has been achieved. The designs for the distributary system are under preparation.

Haveli Project.—The recasting of this project referred to in last year's report has been in progress during the year.

This project and the *Lower Thal Project* are now both held up pending a conference to be held in Simla early this summer, and further progress in these projects will depend on the result of this meeting.

Jalalpur Project.—This project is still under consideration. The area to be irrigated by this project lies in a strip of country along the right bank of the Jhelum at the foot of the Salt Range. The various canals of the project are crossed by numerous torrents issuing from these hills, and adequate provision was not made in the original project for passing their water across the canal area. The water brought down by these torrents is excessively alkaline, and it is essential for the reclamation of a large part of the area to be irrigated by this project, that the water of these torrents should be conveyed into the river without being allowed to spread over the culturable areas. An investigation of the engineering and financial practicability of this is now in progress.

Bhakra.—The situation on this project now is that the site has been approved and a dam 500 feet high with a storage capacity of 4¾ million foot acres of water is being recommended as preferable to the original proposal to build a dam 100 feet lower and store 2½ million foot acres of water.

The completion of the Sutlej Valley project with canals taking off from the Sutlej with a total head capacity of 37,917 cusecs will utilise the supplies in that river to such an extent that surplus water will usually only be passed below the lowest headworks to the Chenab from July to October. The Bhakra project can therefore only affect the supplies passing to the Chenab and Indus during that period when there is more than ample water available in the Indus for Sind, hence Bhakra project will not adversely affect the interests of Sind canals.

Sind. Lloyd (Sukkur) Barrage and Canals Construction Project.—The following report on the progress of the work done on the Lloyd Barrage and Canals Construction Project to the end of March, 1928, has been very courteously provided by the Secretary to the Government of Bombay in the Public Works Department:—

RIGHT BANK SYSTEM.

North-Western Circle.—The field work of the Shahdadkot and Ratodero Branches and their distributaries and minors was completed and the final alignments were laid on the ground and demarcated. The surveys of (1) the Kur Biro Canal which is to be utilised from mile 16 to 24 for D.I.R.; (2) the Shahdadkot Branch and D.I.L./D.I.R. ex the Shahdadkot Branch; (3) the portion of the Manghirwah which is proposed to be ultised from M.2.R. of the Ratodero Branch; (4) Arzi Bhuto and Warisdino distributaries ex the Shahdadkot Branch were completed and their longitudinal and cross sections were plotted. Similarly, the survey and levelling of the Warisdino Machi branch, tail portion of the Sukkur Canal and Kur Muksodawah and about seven miles of levelling of the tail distributary along the Idan wah and beyond, including flying levels, ranging, jungle cutting and nicking out of the centre line of M.I.L. were completed. Owing to a discrepancy in the theodolite work the first six miles of the Shahdadkot Branch were redone and cement concrete rail bench marks fixed at every half mile. The projects for remodelling the Begari Canal and for the Sultankot Branch were completed.

2. The quantity of earthwork excavated by the Ruston dragline machines which were under overhaul during the commencement of the quarter and were employed on excavating the North-Western Perennial Canal upwards from tail amounted to 1·57 crores cft. of earthwork. The excavation of the central

strips of the Central Rice and North Western Perennial Canals and portions of the North Western Perennial, Central Rice and Dadu Canals, including the portions left undone by the machines for various reasons was let on contract and the quantity excavated amounted to 2·43 crores cft. of earthwork. The soil met with in the shallower portions on the rice areas was very hard, but it gradually changed into a softer soil as the machines approached deeper cutting and towards the end of the quarter very soft and sandy soil was met with, which caused clouds of dust with each bucket and made the work, especially at night, more arduous. Tube wells were sunk for water supply for the draglines. The cutting of the side slopes of the North Western Perennial and Central Rice Canals to the designed sections and improving and levelling the beds of the canals were practically completed. The dressing of the spoil banks and side slopes continued side by side with the machines.

3. The two 50-B Diesel driven dragline excavators were employed on the Khirtar Branch and excavated a length of about 2 miles. The total length excavated is about 8 miles. The progress by manual labour on the Khurtar Branch and its distributaries was satisfactory. The total quantity of earthwork done both by the machines and manual labour amounted to 2·27 crores cft. of earthwork. The cutting of side slopes and dressing of banks were extended up to mile 13. Service roads were completed in a length of 40 miles. The No. 6 Ruston dragline machine continued to excavate the Ratodero Branch and excavated 8·19 lakhs cft. of earthwork. The low output was due to the machine being under repairs. The excavation by manual labour by piece work contract on the Shahdadkot, Ratodero Branches and their distributaries and minors amounted to 1·32 lakhs cft. of earthwork.

4. The total quantity of earthwork done and that required to complete the work in this Circle on main canals and branches and distributaries is approximately as under in crores cft. of earthwork :—

	Earthwork remaining to be done to complete the work.	Quantity done to end of March, 1928.
(1) Main Canal and Branches	28·0	35·0
(2) Distributaries	17·8	2·9

5. The buildings at Jahanshah, Bago Dero and Sujawal were completed and those at Kubo Saïd Khan were in progress. The work of regulators and bridges was let out on contract. The miscellaneous work consisted of the preparation of designs of distributaries and minors ex the Ratodero, Shahdadkot, Warisdino Machi, Bagh and Kabula Branches. Site plans for intermediate regulators over the North Western Perennial Canal, taking sub-soil water levels, preparing service roads along main canals, distributaries and minors, excavation of boundary trenches along distributaries and minors and acquisition of land in British and Baluchistan territories.

Western Circle.

6. The investigations into the final alignments of distributaries and minors ex the Dadu Canal miles 16-82 were completed and the designs prepared for some distributaries. With a view to reduce the cost of construction of distributaries and to obtain a better distribution system a number of small changes in the alignment of distributaries and minors ex the Dadu Canal mile 82 to tail were investigated and the new alignments laid on the ground. Owing to change in the discharge and irrigation boundary the rough design of the Johi Branch was revised and finally adopted. The tail portion of the Dadu Canal was redesigned to get more favourable levels, and this necessitated slight changes in the alignments of D-10-R and D-12-R. The alignments of D-8-R and D-12-R, where they cross the railway, were altered to cross at right angles. The earthwork estimate for D-12-R was taken in hand and those for D-8-R and D-11-R were nearly completed.

7. The revision of areas necessitated by the adjustment of Divisional Irrigation boundaries between the Rice Canal, Southern Dadu and Warah Branch Divisions and also on account of the fresh soil survey classification statements was completed. This has caused a slight modification in the discharges of the channels. The work of the formation of new irrigation units to be commanded by the Badeh and Radhan Branches as well as by the minors ex the Rice Canal was completed. The detailed earthwork estimates for the New, Sihar and Ghar Branches were completed. Closer investigations were made in connection with the natural irrigation boundaries of the various branches and distributaries as defined by existing " peeches " and valley lines. These have given very useful information which will be quite valuable when the field water courses are laid on the ground. The question of re-arrangement of distributaries on the Warah and Mirokhan branches rendered necessary on account of the unequal Rabi and Khariff discharges and also with a view to save masonry structures on the Larkana Shahdadkot Railway was finally decided. The problem of providing an adequate supply of water for dry kahrif cultivation after allowing the required discharge for the established rice area was considered and a revised statement of discharges prepared for all the channels. The rough design of the Madeji Distributary and D.I.L. ex the Mirsokhan Branch was revised and approved and earthwork estimates were taken in hand. Similarly the rough design of D.3.L., D.5.L. and D.7.L. were prepared. The land widths of several distributaries were marked and nicked out and levelling along the centre line of some of these was completed.

8. A new Division called the Manchar Drainage Division was opened and organised. Proposals in connection with the storage capacity of the Manchar Lake, the alignment of the Manchar Drain, and the disposal of the hill torrents from the North Western Circle were formulated. The plotting of surveys in connection with the Manchar Drainage Scheme was continued and discharges of the Gaj and other Nais were tabulated. Various alternatives for diverting the water of the Nais were investigated. Detailed contour survey of hills below the Sehwan Railway Station was made with a view to find the cheapest alignment for drainage through these hills. The alignments of the drain and the Manchar containing Bank were approved and instructions were issued to dig trial profiles on the line of the proposed drain through the hills, as the soil varies from sand to hard murum in this length. Longitudinal and cross sections of the Aral Laki were taken showing the effect of the bund thrown across the Chariowah and on the erosion of the river near Sehwan. Statistics were collected in connection with the silting of the Aral Manchar and Aral Laki Channels. Figures of cultivation outside the Flood Protective Bund were collected.

9. Good progress was made with the excavation of canals both by dragline excavators and by manual labour. On the Central Rice Canal the excavation from Ruk to Larkana was continued by two large dragline excavators and about 1·82 crores cft. of earthwork were excavated. From Larkana to the tail of the Rice Canal the work has been let out on contract partly to Zamindar contractors and partly to Pathan and Borhi contractors. The quantity excavated by manual labour amounted to 3·3 crores cft. of earthwork. In miles 16 to 35 of the Dadu Canal the excavation work programmed to be done by the two 135 Ruston machines was completed ahead of the scheduled time and the machines were transferred to the Warah Branch. The remaining length of the Dadu Canal in Northern Dadu Canal Division from miles 35 to 82 has been divided into three lengths and the work let out on contract partly to Zamindar contractors and partly to professional contractors. The two 30-B machines employed on the Dadu Canal in the Southern Dadu Canal Division excavated about 34·6 lakhs cft. of earthwork in a length of 5 miles. The total length excavated by these machines is 22½ miles. The one 50-B machine employed on the Johi Branch excavated 27 lakhs cft. The total length excavated by this machine is 15½ miles. The two 6 Rustons employed on

Distributary 8-R excavated about 18·95 lakhs cft. in a length of 3 miles. The two 50-B, the two 30-B, and the two 135 Ruston machines employed on the Warah Branch excavated about 1·79 crores cft. of earthwork. The quantity of excavation done by manual labour on the Dadu Canal, Warah Branch and distributaries and minors amounts to 1·60 crores cft. of earthwork. The total quantity of earthwork done and that required to complete the work in this Circle on main canal and branches and distributaries is approximately as under in crores cubic feet :—

	Quantity remaining to be done to complete the work.	Quantity done to end of March, 1928.
(1) Main Canal and Branches	53·8	32·0
(2) Distributaries	28·7	0·5

10. The buildings under construction were completed while some new buildings were taken in hand. The construction of intermediate and tail regulators on the Rice and Dadu Canals, Johi Branch and Warah Branch were taken in hand. Similarly the two fall regulators on the Rice Canal and a number of steel and masonry bridges were taken in hand. The miscellaneous work done in this Circle consisted of preparation of plans and estimates for the remaining regulators, fall regulators and bridges on the three canals, planting trees along canals, dressing of banks, making service road, excavating boundary trenches, fixing rectangulation bench marks and taking sub-soil water observations.

LEFT BANK SYSTEM.

Rohri Canal Circle.

11. Surveys of the alternative proposals regarding the change in the alignment of distributaries and minors ex the Mehrabpur and Naulakhi Branches in the Rohri Canal No. 1 division and the surveying, ranging, levelling and lock-spitting of certain channels and the survey of distributaries and minors ex the Thul Branch System and a few minors of the Tando Adam and Jam Branches in the Rohri Canal No. III. Division were completed. Similarly the earthwork estimates of the main canal from head to tail of the Mehrabpur Naulakhi Branches, of the tail distributaries and minors ex the Nulakhi System, of Escape No. 2, of the Alibahar, the Dad, the Surfraz, the Nasir, the Hyderabad Branches and of several distributaries and minors were completed. Statements of lift areas and probable earthwork for Tando Adam Branch and its distributaries and minors, tails distributaries ex the Shahdadkot and Thul Branch Systems and distributaries ex the Hyderabad Branch were approved.

12. Good progress was made with the excavation of earthwork by dragline excavators in the Rohri Canal No. 1 Division. On the completion of the Khairpur Feeder East by the two class 20 Bucyrus machines, one was transferred to the Rohri Canal No. V Division and the other to the Left Works Division of the Lloyd Barrage Circle. Similarly the two class 300 Ruston dragline machines were transferred to the Rohri Canal No. II Division. The quantity excavated by the two large and one 30-B machines in the Rohri Canal No. 1 Division amounted to 1·57 crores cft. of earthwork. In the Rohri Canal Nos. II and III Divisions the two class 300 Ruston and five 30-B machines excavated about 2·28 crores cft. of earthwork. In the Rohri Canal No. V Division the machines excavated a total quantity of 1·61 crores cft. of earthwork. The excavation by manual labour in the circle amounted to 2·96 crores cft. of earthwork. To accelerate the progress, earthwork by manual labour is being vigorously pushed on. The total quantity of earthwork done and that required to complete the work in this Circle on main canals and branches and distributaries is approximately as under in crores cft :—

	Quantity remaining to be done to complete the work.	Quantity done to end of March, 1928.
(1) Main Canal and Branches	106·0	41·0
(2) Distributaries	84·4	5·1

13. A number of buildings were completed and good progress was made with those under construction. The construction of bridges in the Rohri Canal Nos. II and V Divisions was taken in hand. Site of regulators were surveyed and site plans and cross sections prepared. The miscellaneous work consisted of acquisition of land, demarcation of land widths taking sub-soil water levels, jungle cutting and making inspection paths, fixing field boundary stones along various channels, and construction of rectangulation bench marks.

Eastern Nara Circle.

14. The project for remodelling the Mithrao Canal was nearly completed. It had been held in abeyance pending a decision on the question of established rice, which has now been finally decided. Good progress was made with the project for remodelling the Jamrao Canal. The alternative project for the Naokot Branch and its distributaries and the earthwork estimates for distributaries ex the Nabisar Branch, the Thar Canal System, the Hiral Canal and its distributaries, were sanctioned and arrangements made to put the works in hand.

15. The 50-B machines continued the excavation of the Khipro Canal and have excavated a total length of 33 miles. The dressing of the side slopes in this length was also done simultaneously. The four 30-B machines were employed on excavating the Samarjo and Nabisar Branches both of which were completed. They are now employed on the Naokot Branch and the distributaries ex the Samarjo and Nabisar Branches. Good progress was made with excavation by manual labour. Earthwork of containing banks along the Nara from Jamrao head to Makhi Weir, the right containing bank and the left protective bank were completed, thus finishing 42 miles out of the 100 miles to be done according to the Project. Good progress was made with the Flood diversion banks from Makhi Weir to Khipro Weir and Khipro Weir to Thar Weir. Of the cuts Nos. 9, 10 and 11 to the Eastern Nara cut No. 9 were practically completed. Similarly the Sufti distributary ex the Thar Canal and the new distributary R.S. Hiral Canal were practically completed. Good progress was made with the distributaries ex the Khirpo and the Samarjo Branches. A number of buildings were completed and good progress was made with those under construction. The construction of regulators and village road bridges, was taken in hand. The miscellaneous work consisted of sub-soil water level observations, weekly discharge observations, acquisition of land and fixing boundary stones.

16. The total quantity of earthwork done and that required to complete the work on the main canal, branches and distributaries is approximately as under in crores cft. :—

	Quantity remaining to be done to complete the work.	Quantity done to end of March, 1928.
(1) Main Canal and Branches	50·0	23·0
(2) Distributaries	50·0	3·8

Lloyd Barrage Circle.

17. The Inspection Bungalow at Sukkur, the second batch of establishment quarters on the Right and Left Bank, cooly lines, blocks of workmen's huts and the alignment towers for the Barrage on the right and left bank were completed. The new " Masan " and its subsidiary buildings were practically completed and will shortly be handed over to the Sukkur Hindu Panchyat. Good progress was made with the construction of the third batch of

establishment quarters on the left bank. Railway sidings were laid at the quarries, cofferdams and the remaining works area as found necessary and the existing lines maintained in a serviceable condition.

18. The masonry work of the regulators on the right and left banks which form the flanks of the barrage, with their wing and connecting walls were completed up to the springing level of the gate and road bridge. The centreings for arches were assembled and put into position on the right bank and the construction of 6 road bridge arches on the rice canal was in progress. The second and third length of the cast iron grooves was being completed by the contractors. The cofferdams on the right and left banks for constructing the barrage, scouring sluices and the regulators on the Dadu Canal and the Khairpur Feeder West were completed. The bed of the cofferdam on the right bank, which was closed with great difficulty owing to the main channel of the river passing through the site of the cofferdam, was scoured out to a depth of 44 feet, so that no excavation was possible by the dredger, but on the contrary the side slopes had to be dredged in from outside. This was completed, and cofferdam unwatered, after which the filling of the deep parts was czrried out by dredger depositing sand from the river bed through the pipe line carried over the piling. On the right bank about 2½ spans of the main floor were practically completed, and the lower masonry in half the remaining part was well advanced. On the left bank the masonry on the downstream apron of the barrage and its concrete paving and the central floor was practically completed. Pitching of the up and down stream talus was in progress. The superstructure of the regulators over the Dadu Canal was completed to R.L. 190, and that of the Khairpur Feeder West to R.L. 194. The sills and grooves in both spans of the Kahirpur Feeder West were erected. Good progress was made with the downstream left guide bank. The manufacture of composite concrete blocks was continued in the block moudling yards.

19. The ninth pile driving plant was completed, tested and taken over from the contractors, both the floating and land pile drivers were employed on the cofferdams and adjusted as required. Similarly the floating pumping plants were taken inside the cofferdam and moved as necessity demanded. The 25 ton and 10 ton electric floating cranes fitted with new interlocking arrangements were employed on both banks on shifting, loading and unloading piles and other materials. The 10 ton and 1½ ton hand operated Scotch derrick cranes were dismantled and re-erected as required. Some of these cranes were converted into electric drive and the work of converting the remaining ones was in hand. The motor driven compressor worked continuously for supplying air for rivetting etc., in the ship building yard. The mortar mills on both flanks were kept busy as required.

20. The workshops on both banks of the river were occupied with miscellaneous work. Electric power was available day and night. The total units generated during the period were 924,224. The machines were well maintained and were overhauled as required. In addition an arrangement was made to inter-connect the water cooling tanks for the large and small engines so that any engine may be put on to any cooling water tank. Endurance tests were run on the four large engines, the test on each consisting of 168 hours continuous run or normal daily load. This test was carried out as specified in the contract, and all the engines passed through with credit. On the distribution and transmission system a large amount of miscellaneous work was carried out, such as cabling and floating pumping units and portable pumps, alterations to the cables for floating cranes as required, additions and alterations to the works lighting system as required, extension of 440 feet for goliath crane trolley line in the block moulding yard on the left bank, etc. All the machinery in the stone dressing shop was completed, and it is now one of the largest and best equipped stone dressing shops in India. Large quantities of stone required for the barrage and regulators and for lime burning were quarried. The demand for rubble and lime stone for burning were fully met,

and large reserves accumulated at all quarries to meet any urgent demands. The schemes for water supply for domestic purposes as well as for works areas were completed.

21. The dredgers " Ruk " and " Rohri " were employed on pumping sand outside the cofferdam piling, and on forming sand slopes inside the cofferdams. The three tugs and four launches were fully employed on towing crane and pile driving pontoons, barges and other craft and for conveying labour across the river.

22. Kilns for the continuous and the intermittent type for the manufacture of fat and hydraulic lime were fully employed, and the lime manufactured was used on preparing lime mortar for the regulators and barrage scouring sluices.

23. All buildings and plant constructed in previous years were kept in good repair and in good working order. The quantity of earthwork done both by draglines and manual labour on the Nara Cut amounted to 1·68 crores cft. of earthwork.

24. The total quantity done and that required to complete the work in this Circle is approximately as under in crores cft. :—

	Quantity remaining to be done to complete the work.	Quantity done to end of March, 1928.
Eastern Nara Cut	25·5	2·5

GENERAL.

25. The four Canal Circles have been occupied in surveys, preparation of working designs of canals, acquisition of land for canals, construction of buildings and the excavation of main and branch canals both by mechanical and manual labour. The designs have been prepared for all main canals and for most of the branch and major subsidiary channels, and excavation has been carried out during the year with 44 dragline excavators of various types. Two more dragline excavators are in the course of erection. There will thus be 46 of various sizes in operation during the year 1928-29, the largest group of such excavators ever assembled anywhere in the world. An important feature of these machines is that they can be worked daily for 24 hours for 5½ days a week, and during the hot weather months when it is almost impossible, owing to the intense heat, to do any earthwork in Sind by manual labour, these machines keep on with their work.

26. The total amount of earthwork remaining to be done according to the working estimates prepared and under preparation is approximately 409 crores cft., and the total quantity done to end of March, 1928, is 146 crores. The total capacity of the 44 dragline excavators which have been working during the year under report is roughly 70 tons of earthwork excavated and dumped per minute or 1·2 tons per second night and day for 5½ days a week and 250 days in the year. This represents the labour of nearly 30,000 men working all the year round or about 70,000 working for five months of the year, the usual short season in Sind for this type of manual labour.

27. A rectangulation survey of the area under command of the canals of the scheme excluding Khairpur State is being carried out by the Survey of India at the expense of the project. This work has as its ultimate object the standardisation of the size and shape of each survey number, each number being 16 acres in area. It is expected that the Survey of India will complete its part of the task—the splitting up of the commanded area in main rectangles measuring 2·5 miles by 1·6 miles, and minor rectangulation to 320 acre rectangles by the end of the year 1930. The further subdivision of these rectangles into 16 acre plots will be carried out by the staff under the Revenue Officer of this Scheme.

28. The work of the acquisition of land for canals, branches, distributaries, etc., has been continued by the Special Staff under the Revenue Officer. During the year 7,714 acres were acquired at a cost of Rs.8,53,000 at an average rate of Rs.110 per acre.

List of special tools and plant proposed to be purchased in the year 1928-29.

	Railways.
1 mile.	Railway track.
3 miles.	Light Railway track (2 ft. gauge).
20 Nos.	Wagons.
100	Tip wagons.
10	Points and crossings.
4	Signals.
6	Electric Locos and Convertors.
	Fleet.
16	Buoys.
	Cranes.
Lump.	Spares for floating electric cranes.
	Pumping Plant.
Lump.	Spares for pumps for cofferdams.
	Pile Drivers.
Lump.	Spares for pile drivers.
	Diving Gear.
4 sets.	Diving gear.
2 Nos.	Electric hand lamps.
6 Nos.	Submarine lamps.
Lump.	Spares.
	Workshops.
Lump.	Spares and miscellaneous additions and alterations.
	Water Supply Plant.
Lump.	Miscellaneous additions and alterations.
	Mortar Mills.
Lump.	Spares.
	Electric Power Plant.
6 miles.	Electric wiring for running of light railways.
Lump.	Other miscellaneous alterations and additions, transmission lines.
Lump.	Spares.
	Miscellaneous Plant.
Lump.	Pumps, motor, and other miscellaneous plant.
	Block Yard Plant.
18 sets.	Sills and grooves for Barrage gates.
1,283 tons.	Steel sheet piles.
Lump.	Spares for dragline excavators.
50 tons.	Gates (Stoney) for regulators.
50 tons.	Roller boxes, cast iron grooves and other accessories.
33 tons.	Gates (Stoney) for regulators.
33 tons.	Roller boxes, cast iron grooves, and other accessories.
15 tons.	Iron gates for regulators.
15 tons.	Accessories for regulators.
1	Power hammer for handling large shafts for ends, etc., which have to be forged or repaired for making shackles or other heavy parts.
1	Oil grooving machine for bushes.
1	Press for putting on and taking off gears.
1	Annealing muffle for welded repairs.
Lump.	Small fixture and special tools and fittings for machines to cope with manufacture of oil engine parts or repairs of a special sort.

	Compressed Air Plant.
1	Sentinel vertical 2 stage belt driving air compressor 90 cft. with air receiver 2½ ft. by 6 ft. complete.
	Workshop Plant.
2	Complete sets of accessories for shanking and bitting ⅞ of an inch hollow, and hexagonal drill steel (hexagonal shank and bit).
1	Complete set of accessories for shanking and bitting ¼ in. round drill steel.
	Rock Plant.
12	B.B.R. Jack hammers.
1	Planing machine canting arm type.
4	Planing split pulleys for main shafts 3½ in. for planing machines canting arm type.
Lump.	Tools, steel blades, etc.
	Lifting Plant.
1	Overhead travelling crane 10 ton.
	Railway Plant.
1¼ Mile	Railway 2 ft. gauge.
45	Tip wagons.
3	Material trollies.
Lot.	Spares for 300 Ruston Machines.
,,	Spares for 135 Ruston Machines.
,,	Spares for 320 Bucyrus.
,,	Spares for 50 Bucyrus.
,,	Spares for 30 Bucyrus.
,,	Spares for 20 Bucyrus.

Madras. The Cauvery-Meter Project.—The Engineer-in-Chief of this project has kindly supplied the following note on the progress of the scheme and the items of plant and machinery either already installed or contracted for :—

In 1924 the Secretary of State sanctioned an irrigation project in the Madras Presidency to include a reservoir of 93,500 M.c.ft. or 2·15 million acre feet capacity on the Cauvery river and new irrigation in the Tanjore District, some 130 miles downstream of the dam, amounting to 301,000 acres of rice crop.

The Cauvery takes its source in the Western Ghats where the average rainfall at Bhagamandla, near the source of the river, is 230 inches (maximum 400 inches) ; at the dam site some 230 miles downstream, the average rainfall is 30 inches (minimum 18 inches). The river already irrigates over 1 million acres of rice in the Madras Presidency, but its supply is fluctuating as might be expected from the nature of its basin. During the south-west monsoon, June to September, the river is in flood, but there is little or no rain in the irrigable area on the east of the Peninsula. During the north-east monsoon, October to December, the irrigable area is liable to heavy rains ; river flow in this monsoon will generally be conserved and used for early transportation of crops in the following June. The project will ensure a steady supply to the million acres already cultivated, besides making possible an extension of over 300,000 acres.

The project was drawn up in 1910 by Col. W. M. Ellis, R.E., of the Madras Public Works Department. A dispute arose between the Madras Government and the Mysore State as to the relative water rights and the Secretary of State refused sanction till a compromise was effected. After 10 years of daily river gaugings, an agreement was reached which was satisfactory to both parties and limited the capacity of reservoir and the extent of new irrigation as indicated above.

The design of 1910 was on the usual Indian practice of a dam built by hand of rubble masonry in lime mortar. In 1924 the view was held that construction by manual labour would be too slow. Hence it was proposed to alter the type to cyclopean masonry and use plant on a large scale. This view has recently been modified further owing to new developments arising from the availability of good cement in India from factories built since the war. The Government of India have now approved of a change of material to cement concrete poured *in situ*, and for this purpose orders for plant have been placed. The use of cement will add to the cost but will increase speed of construction and accelerate the revenue returns to such an extent that the extra outlay is more than compensated.

In 1924, an abnormal flood of 456,000 cusecs occurred at the dam site against a 65 year record of only 330,000 cusecs. This necessitated a dam higher than was originally proposed, and also a change of site. The new site which is about a mile upstream of the old site, gives better surplus facilities.

The original rubble dam was designed for a maximum stress of 8 tons per square foot calculated by Bouvier's method. The cement concrete dam is designed for a maximum stress of 10 tons per square foot, and will contain about 48 M.c.ft. of concrete. The overall length of the dam is 5,300 feet, and the greatest height 230 feet. Though neither of these figures are unusual, yet the combination of height and length is such as to make this dam the biggest in the world in cubical content. In consequence of the above alterations of design, etc., the cost of the whole project is now estimated at Rs.737 lakhs.

The foundations of the dam are sound charnockite rock, a granitic formation. The main surplus escape on similar rock will have not less than 16 vents, 20 feet high and 60 feet long, fitted with Stoney gates capable of discharging an even higher flood than the highest recorded. There will be 2 or 3 tiers of irrigation sluices each to discharge from 20 to 30 thousand cusecs. Construction machinery should be erected before July, 1929, and if this forecast be correct it is hoped to finish the dam in November, 1933, and to begin irrigation in 1932.

In the headworks accommodation has been provided for all officers and staff. In addition, a camp at the dam, for a labour force of 5,000 coolies has been constructed. There is a hospital with 32 beds. Provision has been made for markets, shops, etc. A water supply estimated at 600,000 gallons a day maximum capacity is being installed with Paterson filters. A drainage scheme is also in progress and disposal will be made by means of a sewage farm. The drainage and water supply schemes will be completed in August, 1928.

A well-equipped workshop has been erected for the repairs and maintenance of the plant used in construction. A power house has been built; it contains at present 5 Ingersoll-Rand Compressors each 500 cft. per minute, free air capacity, and two 165 B.H.P. Mirrlees Bickerton sets with alternators for lighting the camp and supplying power to the preliminary plant. It was originally proposed to add 5 Fullager Diesel Engines to supply sufficient power for the final plant, but a favourable offer from Mysore for power transmitted from Sivasamudram Hydro-Electrical Station was accepted, and the necessary transmission lines are now being erected. The explosive to be used for rock blasting is liquid oxygen. A plant for the manufacture of the liquid oxygen has already been installed at Metur by the Lightfoot Refrigeration Company Limited.

Canal System (*Total cost* 228 *lakhs*). There will be 2 main canals. The Grand Anicut Canal, taking off from the Cauvery at Grand Anicut, will irrigate 2,58,000 acres. The other, known as the Vadavar Extension Canal from the Vennar, will irrigate 43,000 acres.

The total length of both the main canals is about 100 miles. The length of the distributaries is about 300 miles.

Two dragline excavators supplied by Messrs. Ruston & Hornsby Ltd., at a cost of 6½ lakhs, have been working since January, 1928, excavating the Grand Anicut Main Canal. 109,000,000 cft. of earthwork has been reserved for the machines. The machines have been working quite satisfactorily and at lower rates than is possible by manual labour.

Revenue.—The revenue derived from the existing irrigation in Tangore District is 60 lakhs. The extra gross revenue expected under the project is 59·12 lakhs (when the full development takes place), making a total of about 120 lakhs.

Work at the dam site and in the area to be irrigated is in full swing at present.

At headworks excavation of dam foundations is progressing rapidly, concreting has started, and foundations for the final crusher plant and concreting machines are in progress. In the canal area, excavation of the main canals and distributaries with connected masonry works is in progress.

Important items of machinery and plant already installed.

Crushing Plant.

Two Edgar Allen Crushers driven by two 60 B.H.P. Ruston Hornsby Oil Engines. Output 20 tons per hour each.

Concreting Plant.

3 Victoria Mixers—Capacity 30 cft.
3 Rex Mixers— ,, 21 cft.
4 Jaeger Mixers— ,, ½ c.yd.
Concreting Tower 210 feet high, purchased from Tata's.

In Power House.

Two 165 B.H.P. Mirrless Bickerton Diesel Engines with Metropolitan Vickers alternators.
Five Ingersoll-Rand Air Compressors.

Workshops.

Usual equipment with a foundry, and also a Leyner Sharpener Installation.

General.

About 26 miles of 24 lb. track has been laid, and 580 1 c.yd. trucks and 98 2 c.yd. trucks of various makes are working, also 18 locos. The final requirements of track and rolling stock are approximately 1,200 *trucks*, 20 *locos and* 50 *miles of track*. A broad gauge connection is being made to the S.I.R. via Mecheri to Salem.

Machinery and plant ordered but not yet supplied.

Hadfield Crusher Installation, consisting of three 52 in. by 48 in. jaw breakers with their batteries of subsidiary crushers. Output 120 tons of crushed stone each per hour.

2-*Stothert and Pitt Concreting Towers*. Each machine is capable of an output of about 1,500 tons of concrete per day of 10 hours. Several motors, pumps, etc., etc., have been ordered.

Bengal. The Damodar Project.—The Secretary to the Government of Bengal in the Public Works Department (Irrigation) has very courteously given me the following notes in the course of a demi-official letter :—

The Damodar Canal was commenced in 1926-27, and during that year we made preliminary arrangements for starting work including a broad gauge siding, 5 miles long, from Panaghar Station on the East Indian Railway, which the railway have since laid and opened last November. Last financial year, 1927-28, we commenced work on the weir across the Damodar, which continues this year, and we are at present working on the undersluices and head regulator. Contracts for the gates for the undersluices and head regulator have been

placed with Messrs. Ransomes & Rapier through the Chief Controller of Stores, and we have recently placed an order for two steam driven Ruston's dragline excavators, one with a jib of 100 feet to work with a 3 cubic yard bucket, extensible to 115 feet with a 2¼ cubic yard bucket, and another with a 60 feet jib with a 2¼ cubic yard bucket. These machines will be ready for work, I hope, next November. In regard to other plant we have already obtained most of it, which comprises small units : a portion of the two feet light track has been delivered with a portion of the 1 cubic yard wagons. Petrol locos are under order, the rest of the light railway plant will be ordered shortly. I have also recently placed an order for three one yard concrete mixers. Almost all our plant has been ordered through the Chief Controller of Stores, and has been or is being supplied entirely by British firms, and the value aggregates something more than Rs.6 lakhs. We have also entered into a contract with Messrs. Martin & Company for the construction of about 14 miles of the Main Canal, including all works such as falls and bridges, and next cold weather I hope to place further contracts for some of the branch canals.

The total estimated cost of the canal is Rs.78 lakhs, and about 2,00,000 acres of paddy will be irrigated. We hope to be sufficiently advanced with the work by 1931 to open this canal for partial irrigation. There is one other small canal under construction which will cost about Rs.5 lakhs in the Birbhoom District, and will irrigate 10,000 acres of paddy, but we require very little plant for it.

Last year certain special lock-gates for locks 15 to 20 feet wide were obtained for the side channels issuing from the Madaripur Bhil Route, which we are placing under proper control. These gates are more or less on the Stoney gate principle, and will be raised so that boats can pass under them. This contract was placed with Messrs. Ransomes & Rapier and was a little under Rs.1 lakh in value.

2. HARBOUR WORKS.

Calcutta Port Extensions. Progress of the Scheme.— I am indebted to Mr. S. C. Stuart-Williams, Chairman of the Calcutta Port Commissioners, for the following progress report on the developments during the year ended March 31st, 1928 :—

In my report for last year, I referred briefly to the progress made up to the end of March, 1927, on the Calcutta Port Commissioners' extension schemes, with special reference to (*a*) the execution of the King George's Dock scheme in its first phase, together with a number of connected improvements and extensions, and (*b*) the construction of an additional 80 ft. lock entrance to the old Kidderpore Dock system.

(*a*) As regards the King George's Dock, the progress made during the year 1927-28 is on the whole satisfactory. The rainfall during the monsoon of 1927 was exceptionally light, and good progress was made with low level work at all points. The floor of the lock entrance had been completed by March, 1928, except for a small area at the Wet Dock, or Basin end, which remained to be finished off as an " apron." The apron work at the ends of each entrance has to be undertaken under conditions less favourable than those obtaining throughout the floors generally, on account of the proximity of water at a high level, in the river or in the Basin. The river apron of the lock entrance was successfully completed late in 1927, and those at the basin ends of the lock and the graving docks were taken in hand soon after. Water was encountered under conditions which threatened the safety of the temporary protective earthen dam, but the measures taken have so far afforded security and rendered possible the progress desired. Completion in this area is hoped for by June, 1928, but the work on the apron at the river end of the graving docks, where, however, conditions promise to be more favourable, is less advanced.

No considerable area of floor in the graving docks has yet been quite completed, but all the low level work has been carried out. Good progress was made on the blue brick lining of the lock entrance, the walls of which were completed to a mean level of a few feet below that of the copings, and a substantial start was made on the similar work to be done in the two graving docks. The culverts for the control of water in the lock entrance were finished, as also the greater part of those in connection with the main pumping installation, which will serve both for drying out the graving docks and for impounding river water in the basin.

The most important dates marking progress on the scheme are those by which the various caissons, which are to serve the purpose of dock gates, are placed in position. Before dredging craft can proceed into the basin to handle the " spoil " which is beyond the reach of the land excavators of the dragline type, which have been working there since 1925, it is intended to have two caissons in position across the lock entrance and one across the graving docks. The caissons could not be built in the positions in which they will function as gates nor, in view of their weighing as much as 1,000 tons, can they be hauled about in the dry. Partial flooding is necessary in order to manœuvre them, and water was let into the lock entrance for the first time early in March 1928, in order to place the outer caisson in position. It is hoped to get the inner caisson into place in May, and, after an interval of a few weeks, to float a third caisson into the groove at the basin end of the graving docks. If the results of tests are satisfactory the passage of craft, between the river and the basin, will then shortly be possible.

A considerable quantity of dredging has to be done, both on the river bank and in the basin, but the Commissioners' plant should be able, provided it is possible to adhere to the flooding programme, to clear the area required for the use of three of the five berths under construction, by about the end of 1928.

The structural work on the extensive transit sheds at the berths is nearly completed and the electric quay cranes are now being erected. Two-ton lifts are being provided for handling cargo passing to and from the first and second floors, and these will shortly be installed. The road and railway facilities for the berths are well in hand.

The earth in front of the quay walls was removed in 1927, giving access for the water in the basin up to the face of the quays. The soil of Calcutta is of a treacherous nature ; but it is satisfactory to record that no movement of the walls occurred when the support was withdrawn, such as took place when the Kidderpore Docks were under construction, an occurrence which all but led to a disaster.

The work in connection with the distribution of power around the dock area is just commencing, equipment having arrived, hydraulic power is being employed for the equipment of the entrances, and for all capstans ; all other power will be electric.

The work of reclaiming the low-lying land on the Commissioners' extensive dock estate proceeded along with that of excavation in the basin area by means of draglines. Large areas are now available for future port purposes, such as subsidiary railway marshalling yards, as also numerous plots for industrial and other requirements, and negotiations are now proceeding with several applicants for accommodation. Consideration has been given to an ad interim stage of railway development which it may be desirable to bring about, should it appear possible to defer the heavy expense of the final scheme to a relatively distant date. The completion of the Bally Bridge is likely to have a bearing on this question.

A start was made on the impounding scheme which is destined eventually to supply water for both the Kidderpore and King George's Docks, and which will ultimately lead to the abolition of the Boat Canal.

(*b*) *Kidderpore Dock—new 80 ft. entrance.*

Work has progressed satisfactorily during the year on the execution of this particularly difficult work, which will give a new and larger lock entrance to the old Kidderpore dock system. The original estimates were based on the assumption that the floor of the lock could be carried out in the dry and that normal foundations would be possible at the levels fixed. In process of execution, however, it soon became apparent that the floor could only be constructed by means of monoliths, and actually wells of a specially large size, namely 74 ft. by 45½ ft. have been utilised. These changes in the method of execution accompanied by the necessity for the extensive use of divers, working in some cases in as much as 80 ft. of water, together with incidental difficulties attributable to the peculiar nature of the site and the unusual hydro-static pressure, will entail a total expenditure of about Rs.94 lakhs as against the original estimate of Rs.64 lakhs. Completion is hoped for about the end of the financial year 1929-30.

Bombay Port Trust Capital Works.—In pursuance of the declared policy of the Board to avoid further commitments on loan account until trade conditions are more settled, capital expenditure during the year was restricted to essential works and kept down to a minimum. It aggregated Rs.11·86 lakhs, which is the lowest since 1902-03. The principal works in which expenditure was incurred during the year were the deepening of the Alexandra Dock entrance channel and the mail steamer berth (Rs.5·57 lakhs), new dredging plant (Rs. 1·51 lakhs), and removal of a portion of the Alexandra Dock dam (Rs.1·13 lakhs). No new loan was raised by the trustees during the year, the expenditure being financed from loan balances in hand.

Karachi Port Improvement Scheme.—Mr. J. B. S. Thubron, C.I.E., Chairman of the Karachi Port Trust, has contributed the following note on the position :—

Note on the progress of the West Wharf Works and the future requirements, etc.

Good progress has been made with the construction of the six deep water berths on the west side of the harbour—the quay wall for three berths totalling 1,650 feet in length having been completed. A new bucket dredger recently purchased is at work dredging in front of the berths and has finished one which is now open. The depth alongside the first three berths will be 32 feet below low water ordinary spring tides and alongside the next three 34 feet. Five 2-ton electric cranes for No. 1 berth are erected and a further five for No. 2 berth are in course of erection. At the present rate of progress the six berths should be opened in 1931. No more machinery or construction plant is likely to be required for construction work.

Five more electric cranes will be ordered this year followed by ten in 1929 and five in 1930.

The following plant will also shortly be ordered :—Quadruple grab hopper self-propelling dredger of 1,000 tons hopper capacity ; one 5-ton steam crane ; railway material for new West Wharf Yard ; and electric cable and transformer for yard lighting.

British manufacturers when tendering for requirements should place themselves in touch with the Board's Consulting Engineers, Messrs. Rendel, Palmer & Tritton, 12/14, Dartmouth Street, Westminster, London, S.W.1.

Harbour Developments in the Madras Presidency.—Mr. R. C. Bristow, Harbour Engineer to the Madras Government, has very kindly supplied the following note on the harbour schemes at Cochin and Tuticorin :—

Note on the present position of the harbour works at Cochin and Tuticorin.

COCHIN.—Considerable progress has been made during the past year in both the inside and outside dredging work. Nearly two million cubic yards of material consisting of heavy sand, clay, and a large proportion of oyster shells were dredged during the five months comprising the season's work inside, viz., May to September inclusive, and pumped into the Venduruthy reclamation. A little over 28 acres were reclaimed to the finished level and a further area of 220 acres was filled up to above low-water level.

It is seldom possible to obtain material for reclamation which after pumping does not require a very considerable time—sometimes several months—before it settles down and becomes capable of supporting any appreciable weight. It is fortunate, therefore, that at Cochin the greater portion of the spoil, although more difficult to dredge, is so dense that, once above water-level, it is possible to walk on the material immediately after it is pumped ashore. The usual difficulties and precautions necessary in erecting buildings, etc., on reclaimed ground will consequently be minimised considerably and prolonged delays in developing the area, through waiting for the ground to consolidate, will not arise.

While inside dredging was in progress, arrangements were being made at home by the Harbour-Engineer-in-Chief for the manufacture and supply of new ball-joints for the pipeline to replace the joints originally supplied, the latter having been found unsuitable for working in the swell encountered on the outer bar. A committee of experts was formed to consider the question of the most suitable type of joint, and on this being settled, orders were immediately placed with the manufacturers.

A sufficient number of joints were received to enable outside dredging on the bar to commence on the 8th December. Besides the new joints themselves, an entirely new system of springs, and check and preventer wires between the pontoons had been devised to take up the shocks to which the pipeline was subjected. The new system worked admirably, and it was found possible to keep on dredging in all but the roughest of water when the swell exceeded 4 feet in height. This happened on one occasion, when it became necessary to bring both dredger and pipeline inside for a few days till the weather had calmed down. The new joints also kept perfectly watertight. The most difficult part of the dredging, viz., the cut through the ridge on the bar about 4,000 feet long, was tackled first. After a little experience no difficulty was found in keeping up a steady output, and apart from a few minor delays the progress was exceptionally good. The material consisted of heavy sand, a large proportion of which was ilmenite, quite black in colour. The bar was cut through by the end of January, and it was then expected that, with the diminished height in the face of the cut as the depth of water ahead increased, the dredging would be considerably easier. The sand, however, increased in density, and settled in the pipe, and it was therefore necessary frequently to stop dredging and pump sea water only to clear the pipes and prevent choking. The consequent loss of time in actual dredging, of course, reduced the output per pumping hour, a contributory factor being the considerable wear which had taken place in the pump itself and reduced its efficiency. The cut on the inside of the bar was completed by the end of February, by which time the pump was in a very bad state, and it is doubtful whether it would have been possible to continue dredging much longer in similar material. The channel, about 5,200 feet long on the seaward side of the bar, still remaining to be dredged, however, consisted only of mud, and it was considered that its effect in increasing the wear on the pump would be inappreciable—an opinion which was subsequently confirmed.

The dredging of the outermost channel was commenced on the 5th, but, as previously mentioned, there was a slight set-back owing to bad weather. Dredging, however, recommenced on the 12th and between that date and the 30th March, when dredging stopped and the through channel was completed, a total quantity of 883,450 cubic yards were dredged—a world record ! The total quantity dredged during the season's work outside amounted to 2,261,960 cubic yards. There is now, therefore, a through approach channel 400 feet wide at bottom and 32 feet in depth leading from the open sea across the bar to the inner harbour, which it is possible for ships of the requisite draft to navigate, and although the stage has not yet arrived when it is possible to guarantee the safety of the channel to all ships using the port, there should be no risk for those drawing up to 20 feet to navigate it and it is expected that some will shortly venture to do so.

TUTICORIN. The main feature of the past year was the reference of the whole scheme to a committee of expert engineers at home, before whom the Harbour Engineer-in-Chief was deputed to give evidence. Owing to the local apprehension as to the financial effect of the proposals for the purchase of fresh plant, it was not considered desirable to push on the work very rigorously pending the receipt of the Committee's report. Work was therefore carried on as well as possible with the existing plant, and in spite of the disabilities under which it was executed a total quantity of 118,957 cubic yards of rock and coral were dredged between 1st April and 18th November, 1927, when it was finally decided by Government to suspend the capital works. During the above period about 6 acres of reclamation to the level of 8·43 feet above low water were formed from the dredged spoil.

The Expert Committee confirmed the estimates and otherwise supported the proposals for carrying on the work as put forward by the Harbour Engineer-in-Chief, but considered that a harbour fronting the town of Tuticorn instead of one at Hare Island might be preferable and recommended that such a scheme should be investigated. Their recommendations were duly put before the local authorities who, however, in reviewing the factors which influenced the Expert Committee in their decision on the location, considered that similar ends might be served with the harbour at Hare Island, and accordingly recommended the investigation of a scheme for a complete harbour at Hare Island. This is now being carried out.

The Port of Rangoon.—Mr. J. A. Cherry, C.I.E., Chairman of the Rangoon Port Trust, has very courteously supplied the following note on the work carried out on Port Extension Schemes in 1927-28 :—

The port has completed another satisfactory year, and the traffic figures constitute a record. During last year, 1927-28, 1,526 steamers with an aggregate net tonnage of 3,880,057 entered the port, an increase of 78 in number and 66,493 tons in tonnage compared with the figures of 1926-27.

The sea-borne traffic was 5,558,831 tons, of which 1,968,688 were imports, 3,375,075 tons exports, and 15,068 tons transhipment ; a total increase of 564,507 tons compared with last year. The volume of sea-borne traffic over the Commissioners' premises totalled 2,027,657 tons of goods during the year ; an increase of 309,722 tons compared with last year.

River-borne traffic passing over the Commissioners' premises was 884,893 tons against 840,262 during 1926-27 ; an increase of 44,631 tons.

The progress during 1927-28 in connection with the development schemes of port facilities is as follows :—

Wharves extension and reconstruction for sea-going vessels traffic.—Detailed plans and estimates amounting to Rs.47,75,000 for the joining up of Sule Pagoda and Latter Street wharves have been prepared by the Commissioners' Consulting Engineers and approved by the Commissioners. It is anticipated

that the work, comprising the construction and equipment of a new wharf with a two-storied transit shed and the extension of transit shed No. 1 at the east end of Latter Street wharf, will commence before the end of the present year. Tenders in the matter are now being invited by the Commissioners' Consulting Engineers, Messrs. Sir Alexander Gibb & Partners, in London, from selected contractors.

Lanmadaw foreshore development for inland vessels, local and railway traffic.—Transfer of the Irrawaddy Flotilla Company's Mandalay steamers traffic to Botatoung, and of the Import Salt traffic to Pazundaung has resulted in the vacation of four transit sheds and fifteen godowns. Alterations have been carried out to a number of these godowns, and the whole have been allotted for the accommodation of the rice traffic transferred from Crisp Street. In addition eleven steel frame godowns, area 33,000 sq. ft., served by rail and road, were completed and have been occupied from 1st January, 1928. In the place of the Mandalay steamer pontoons transferred to Botatoung, three cargo boat jetties and three pontoons have been erected for the rice traffic and to provide additional facilities for inland creek steamers. Estimates amounting to Rs.6,21,394 have been sanctioned for these works.

The Commissioners contemplate, at a future date, to create a new and advanced line of foreshore at Lanmadaw from Latter Street wharf westwards to Ywathit Creek, reclaiming some 10½ acres of land with a river frontage of 5,220 feet. It is proposed to erect 17 pontoon jetties, 16 cargo boat jetties, and construct godowns, roads and railway sidings calculated to afford the greatest possible facility for river, road and rail traffic and to provide the maximum godown storage accommodation for goods.

Botatoung development for the Irrawaddy Flotilla Company's Mandalay steamer traffic.—The new depot at Botatoung for the Irrawaddy Flotilla Company's Mandalay steamers was opened to traffic from the 1st December, 1927. Three double pontoons each 200 feet long have been transferred from Lanmadaw, and some 96,299 sq. ft. of transit shed and godown accommodation have been completed. Provision has been made for 60,000 sq. ft. of additional godowns immediately to be erected at this depot, and sanction has been accorded to the erection of eight godowns, with a floor area of 40,243 sq. ft. at a cost of Rs.2,25,676. Estimate for the remaining four godowns will be submitted for sanction at an early date. Although this depot has only been opened to traffic for 5 months it has already been realised that extension is imperative, and a proposal to transfer the Commissioners' mooring plant, coal, etc., to a site at King's Bank on the right bank of the Rangoon river has been generally approved. When the transfer has been effected it will provide additional river frontage and admit of extensions of the Mandalay and Coastal depots.

The construction of a new Import Salt Depot at Pazundaung.—The construction of this depot is nearing completion in accordance with sanctioned proposals, and transfer of the salt traffic from Lanmadaw commenced in September, 1927. The new depot consists of 36 godowns, including 4 under construction, with a total area of 151560 sq. ft. and a storage capacity of 45,600 tons, and has been constructed on Commissioners' land at Upper Pazundaung. This land, some 9 acres in extent, was purchased in 1909 for Rs.4 lakhs, and its reclamation and equipment as a salt depot has been carried out at a cost up to date of Rs.12,59,600.

Additional moorings for sea-going vessels.—The sanctioned scheme provides for 2 new blocks of six berth fixed moorings. The laying of the first block which comprised two additional berths eastwards of the present block of the Botatoung Fixed Moorings, and four berths in the centre of the harbour has been completed. The swinging moorings displaced have been relaid in other parts of the river convenient for shipping. The laying of the second block of six berths was originally fixed for 1932-33, but the work will be taken in hand

before that date should it be found that the present mooring accommodation is inadequate.

Development at Dawbon.—In their scheme for the development of Dawbon, the Commissioners provided for the protection of the foreshore of their land on the right bank of the Pegu river for reclamation and for the building of a wharf with roads and railway sidings. Proposals are now under consideration for carrying out certain of these works, and a survey of the Pegu river above port limits at an estimated cost of Rs.12,000 has been completed.

In the first place it is proposed to erect a wharf with facilities for the landing of coal for the Durma Railways, some 250,000 tons per annum, and for coal imported into Rangoon for railing up-country, some 60,000 per annum. Provision will also be made for the storage and shipment of mineral ores.

Passenger Depot, Phayre Street.—A layout and design prepared by Mr. T. O. Foster, F.R.I.B.A., Architect, for a passenger station at the end of Phayre Street for the local and sea-going passenger traffic necessitated by the extension of the wharves has been approved, and work will be taken in hand during the present year.

Military Commissariat Depot at Godwin Road.—Detailed plans and estimates amounting to Rs.1,40,000 for buildings, etc., of the new Commissariat depot have been approved and construction will be commenced during the present financial year. Plans have been prepared in consultation with the Military authorities, and provide for officers and storage godowns with rail, road and river connections. Tenders for the construction of the buildings are being invited.

King's Bank Reclamation Works.—This scheme, which was commenced in January, 1924, and completed in December, 1927, consists of a wall 6,103 feet long with a maximum height of 32 feet. The cost, including land acquisitions, amounts to Rs.38,52,162. The works have had the effect of contracting the width of the Rangoon river across the Hastings shoal, with the result that the best tracks in the Monkey Point channel have deepened to 20 feet (least water) where previously the ruling depth was only 15 feet; the height and volume of the Hastings shoal have been reduced, and the old unstable King's Bank channel has been closed and a new channel has formed following the line of the wall. Present indications point to this channel joining up with that along the right bank of the river from opposite King's Bank Fort to D'Silva Point, and thereby forming a subsidiary entrance to the harbour.

Some time must necessarily elapse before the river adjusts itself to the new conditions, but the results so far obtained bear out the anticipated improvement in the approaches to the harbour, and there can be no doubt that further improvement will shortly take place.

Commissioners' new Head Offices.—Construction is proceeding rapidly, and it is expected the new building will be occupied in August, 1928, when all Heads of Departments and their staffs will be under one roof for the first time since 1st March, 1910.

Railway facilities.—The improvement of the present facilities for the transport and handling of rail-borne traffic to and from the Port Commissioners' premises has been under consideration, and to provide the necessary extra accommodation it is proposed to transfer some four acres of land at Lanmadaw to the Burma Railways Company in exchange for about 1 acre of land at Latter Street. This latter area will be merged in the Latter Street wharf area, giving extra accommodation for storage of goods in transit.

The provision of a new dredger and floating crane is still under consideration.

The Vizagapatam Harbour.—The Administrative Officer of the Vizagapatam Harbour Construction has supplied the subjoined progress report for the year 1927-28:—

Monolith Quay Wall.—In the early part of the year the non-delivery of two loco cranes ordered from England hampered progress with sinking of monoliths. Rapid progress was made with construction of monoliths, and after the arrival of the cranes in August a satisfactory rate of sinking was obtained. 1,709 feet out of a total sinking of 1,730 feet has been completed. 22 of the monoliths have been sunk to the full depth of 45 feet and the super-structure built to a full height on monolith No. 3.

The foundations for the two large transit sheds and one store shed have been completed, and the foundations of the second storage shed were well in hand at the end of the financial year.

Dry Dock.—The construction of a dry dock 321 ft. by 60 ft. 6 in., with 8 ft. depth of water over the sill at low water was started during the year, and work is being pushed forward to enable the dredger " Vizagapatam " to use this dock for her yearly docking.

Electric Power Station.—Orders have been placed in England for the plant and equipment required for this station, and delivery will be made at Vizagapatam during 1928-29.

Oil Depot.—At the instance of the Oil Companies concerned a slightly revised layout has been adopted for this depot which permits of easy and comparatively cheap extension of the berthage in the future. In the first instance one berth will be provided for the oil tankers.

Dredging.—The repairs to the dredger " Vizagapatam " necessitated owing to the accident which occurred to this vessel last year, were successfully carried out in Calcutta, and the vessel after dredging her way through the bar was brought into the creek at Vizagapatam on 23rd January, 1928. A start was made on the Harbour Dredging programme on 31st January, and up to the end of the financial year a total quantity of 800,000 cubic feet has been excavated.

Dipper Dredger " Waltair " was also employed most of the year in preparing a channel for the entry of the " Vizagapatam " inside the bar.

Bucket Dredger " Manar " was hired from the Madras Government for the same purpose and worked in the entrance channel from 11th October, 1927, to 26th January, 1928, when she was returned.

Grab Dredger " Mudlark " was employed removing material from the old railway bund and also in sinking the well foundations of the ferry landing places.

Manganese Wharf.—The bunds and pitching round the Manganese Wharf area are nearing completion, and the reclamation of this area will be undertaken by the suction dredger in due course.

Railway facilities.—The general layout of these facilities has been approved and detailed plans and premises are under preparation. These facilities include a marshalling yard and exchange sidings for the docks, and a railway connection to the oil depots on the south side of the harbour. A very large catch water canal is also to be constructed to intercept all the water draining into the dock area and discharge it into the Scour Basin.

Lighthouse.—Mr. D. A. Stevenson visited the port during the year and on his recommendation it has been decided that in view of the rapid advance which is being made in wireless especially in regard to direction finding it would be premature to undertake any scheme for replacing the existing lighthouse at Vizagapatam.

Anti-Malarial Measures.—Very comprehensive anti-malarial measures have been adopted and have been very successful in reducing the number of mosquitoes in and near the area. The work involved consists mainly of clearing jungle, filling up disused wells, and grading the nullahs in the area. These works, together with oil spraying in the area within one mile of the harbour, have resulted in practically exterminating the mosquitoes.

A special anti-malaria committee is being formed to co-ordinate the anti-malarial work of the various authorities in and around Vizagapatam.

Staff.—Col. H. Cartwright-Reid, who has been the Engineer-in-Chief of the harbour since 1922, retired on 31st March, 1928, and handed over charge of the work to Mr. O. B. Rattenbury, Deputy Engineer-in-Chief, who will act as Engineer-in-Chief for the time being.

Finance.—The total recorded expenditure up to the end of the financial year 1927-28 amounted to Rs.1,08,08,111, while the actual expenditure during the year amounted to Rs.29,05,611.

Port of Chittagong.—Commander C. R. Bluett, R.I.M., Port Officer and Secretary to the Port Commissioners, Chittagong, in forwarding the following two brief notes, states that while it has not been possible to make any actual progress on the Harbour Works, the preliminaries are well up to date and the dredger " Patunga " is now (June, 1928), actually at work dredging the bars, and it is hoped to begin revetment work on the river bank at Guta Point after the monsoon. Extensions of the Port Workshops are also in progress and schemes for the housing of certain Port Commissioners' employees are materialising.

New dredger "Patunga."—The new 2,000 ton suction hopper dredger " Patunga " under construction on the Clyde was completed and, after running trials, left Renfrew for Chittagong in March, 1928.

River Improvement Works.—A report on training works for the estuary of the Kornafuli river was received from Messrs. Rendel, Palmer & Tritton, Consulting Engineers, and detail survey work in connection with the schemes embodied therein was taken in hand for the preparation of estimates.

3. HYDRO-ELECTRIC SCHEMES.

The Punjab Hydro-Electric Scheme (known as the Uhl River Project).—Lt.-Col. B. C. Battye, R.E., has very kindly supplied the following brief note on the present position of this project :—

Progress during the last year has consisted mainly in the completion of the construction equipment, including the temporary power plant at Dhelu, the completion of the haulageways and the installation of tunnel construction plant, compressor stations, blowers and excavating machinery. Tunnel driving on the south side of the hill started in March, 1928. The haulageways serving the Uhl Valley are expected to be complete and ready for the transportation of tunnel construction plant by the end of June. The construction of the second subsidiary power project in the Uhl valley is progressing, and should be completed by about the end of July. Contracts and orders for construction plant have, therefore, now been practically completed ; the bulk of the work remaining is connected with the specifying and calling for tenders for the pipeline, generating plant, switchgear, transformers, transmission line towers and substations. The specifications for these are well in hand, and it is anticipated that tenders will be called for the bulk of this plant and machinery during the coming autumn. For example specifications for upwards of 400 miles of transmission lines will probably be completed in the course of the next two months, the same applies to the Penstock pipes and generating plant.

Tenders for the substations and power house switchgear will probably follow a few months later.

Hydro-Electric Developments in the Madras Presidency.—In the course of a note received from Major H. G. Howard, Chief Engineer for Hydro-electric Development to the Madras Government, he comments as follows on the projected schemes in southern India :—

The Madras Government have, for some time, been carrying out renaissance surveys of all possible water power resources of the Presidency, and some very useful information is now on record. Preliminary surveys and estimates of certain of these power developments—Pykara, Pinjikave, and Papanasam have been carried out and the reports published.

The Government considered these reports sufficiently favourable to warrant a more complete investigation.

In September of last year an experienced hydro-electric Engineer was engaged and a Department of Hydro-Electric Development formed. After a brief survey of all the possible power developments, studies were concentrated on Pykara and Papanasam. In November the Department issued an Introductory Report on the Pykara project.

This report advocated certain modifications in the original design, and showed that the estimated revenue from the complete installation would bring it well within the Public Works Department's interpretation of a productive work. Detailed designs and estimates of this project are now in course of preparation.

Two schemes are proposed. One includes the electrification of three sections of the South Indian Railway, and the transmission and distribution of power to the Nilgiris, Coimbatore, Tiruppur, Erode, Pollachi, Anamalais, Trichinopoly, Dindigul, Madura and Virudhunagar.

The smaller scheme only includes the transmission and distribution of power to the Nilgiris and Coimbatore District, assuming that the South Indian Railway will decide not to electrify.

The development of electric power in Southern India on a reasonably large scale depends now on the electrification programme of the South Indian Railway. The local authorities are generally in favour of electrification, but the decision rests on the recommendations which will be made by the Consulting Engineers appointed by the Railway Board.

Without the railway load much of the original transmission system has to be left out in order to reduce the capital investment and render the scheme commercially feasible.

The Railway Board has sanctioned the electrification of a section of the Madras Suburban Lines of the South Indian Railway, and preparations are now being made to start work.

If the construction of the Pykara project is sanctioned it is not expected to attempt to transmit power to Madras at the outset, but wait until the demand has increased.

All coal and oil needed for fuel has now to be imported, and it is rather surprising that the development of the water power resources of the Presidency should have been so long delayed. It is therefore hoped that during 1928 the Madras Government will decide to sanction the construction of at least one of the schemes now being studied.

British Electrical and Associated Manufacturers are, in general, aware of these schemes, and many of them have been furnished, by request, with all the technical details.

The general technical details of the Pykara project as now proposed may, however, be repeated as follows :—

Static Head	...	...	3,090 feet.
Penstocks—			
Number	...	...	2.
Diameter	...	...	37 in. to 27 in.
Length	...	...	9,600 feet each.

Power House—
Steel Building.
3 7,500 KW. 11,000 volt generators ·85 P.F. and impulse wheels.
3 Transformers 11,000/110,00 volts, 8,800 KVA. each, 3 phase outdoor shape.

Transmission Lines.

Towers	...	Steel Structures.
Conductor	...	Aluminium Cable Steel reinforced of various sizes.
Insulators	...	Suspension.
Voltage	...	110,000 volts and 66,000 volts.
Length	...	About 190 miles 110 KV. and 150 miles 66 KV.

Various substations are contemplated of the outdoor type needing the following three phase transformers with the necessary switchgear :—

3—3,000 K.VA	...	110/11 KV.
5—4,000 ,,	...	110/66 ,,
3—1,000 ,,	...	66/11 ,,
5— 500 ,,	...	66/11 ,,

Ceylon. Electrical Developments during 1927-28.—The Principal Collector of Customs, Colombo, who acts as Imperial Trade Correspondent, has forwarded the following note on electrical developments during the past year :—

" In 1927 Government agreed with the Colombo Electric Tramways and Lighting Co., Ltd., to purchase their electricity supply undertaking, mains system and Power Station, for the sum of £245,000 as from 1st January, 1928, and plans were accordingly made to incorporate the Colombo Electric Tramways and Lighting Company's system with the new distribution system designed by Government for electricity supply in Colombo, and to interlink the Company's Power Station with the new Government Power Station at Kolonnawa.

The Company's system taken over by Government on the 1st January, 1928, comprises about 100 miles of feeders and distributors at 2,200 volts, A.C., 60 cycles, single phase, transformed down to supply groups of consumers at 100 volts ; also a D.C. 3 wire, 440/220 volt system for the " Fort " or business area, and a 550 volt D.C. supply to the Tramways and sundry small power consumers.

The power station taken over by the Government from the Colombo Electric Tramways and Lighting Company is equipped with 8 Diesel engines of various makes, and 3 Belliss & Morcom steam driven sets, the Station having a total output capacity of about 2,700 KW.

The distribution system supplied from the new Kolonnawa Station and now under construction provides for two 3 phase, 11,000 volt ring mains, one for the northern and one for the southern area, each ring designed to carry 12 sub-stations supplying low tension, 4 wire, 3 phase networks at 400/230 volts, 50 cycles. The D.C. system in the " Fort " area now supplied from the Station purchased from the Colombo Electric Tramways and Lighting Co., is to be supplied from the new 11,000 volt, 3 phase system, through rotary converters, in a new sub-station, and part of the existing 2,200 volt, single phase load on the old station is to be taken on the 3 phase, 50 cycle supply from Kolonnawa through motor generator plant to relieve the old Station.

The Kolonnawa Station now under construction includes two 3,000 KW., 3 phase, 11,000 volt turbo-alternators and two Babcock and Wilcox boilers, the contractors for the plant being the Metropolitan Vickers Company, and it is expected that one 3,000 KW. turbo-alternator will be in commission before the end of this year.

Owing to the fully loaded state of the existing Diesel and steam driven station, no new consumers have been connected to the mains for many months past, and as soon as supply becomes available from the new Kolonnawa Station it is expected that there will be extensive developments of electricity supply, both for domestic purposes and for power, and there should be a good demand in Colombo for electrical material.

All new consumers on the 3 phase, 4 wire, 50 cycle networks will be supplied at 230 volts, single phase, for lighting, fans and domestic appliances, and at 400 volts, 3 phase, for power. It is proposed to transfer eventually all the existing consumers now on 100 volts, 60 cycles, A.C. to the 230 volts, 50 cycle circuits.

The electricity supply of Colombo is now entirely under control of the Ceylon Government, and all information regarding supply conditions can be obtained from the Director of Electrical Undertakings, but it is not intended that Government should carry out any extensive wiring schemes for consumers' premises, all such work being done by local contractors. Government will, however, encourage the demand for electricity in every possible way, and will offer easy terms where necessary for hire purchase of motors and other current consuming appliances if contractors are not able to meet consumers' requirements.

Work on the hydro-electric scheme has been stopped pending further investigations.

Work in connection with electric lighting installations in small towns throughout the Island continued during the year. The standard form of installation adopted for small towns is 400/230 volts, 3 phase, 50 cycles, oil engine sets. The installations are usually carried out by private firms under the supervision of the Government Electrical Department on specifications prepared by the Department."

It will be noted that the hydro-electric scheme is in abeyance until Government decide on the further steps which should be taken. In the meantime, the services of Mr. J. S. Pitkeathly, C.I.E., Chief Controller of Stores with the Government of India, who has had considerable technical and administrative experience of electrical schemes in the East, have been loaned to the Government of Ceylon for nine months. Mr. Pitkeathly will thoroughly investigate the practicability of the hydro-scheme and will report on the measures which should be taken to deal with the present unsatisfactory position.

4. OTHER WORKS.

The Calcutta Chord Railway Project and the Bally Bridge. —The following note, dated 12th May, 1928, has been very kindly supplied by Mr. A. H. Johnstone, the Engineer-in-Chief :—

Calcutta Chord Railway. Length 8·30 *miles.*—The construction of this line, the primary object of which is to shorten the distance between the Ranigunge and Jherria Coal Fields and the Docks, has advanced considerably during the year. The work of major importance on it, the Bally Bridge, an undertaking estimated to cost about £700,000, is gradually growing into existence. At the present moment, about half the underground work consisting of about 800 lineal feet of sinking has been completed. One of the piers, all of which above bed are to be of brick, has been completed, and another is in progress of being built. The caissons on which the piers are founded vary in height according to the depth of water, the deepest, viz., No. 2, is 55 feet in height, and weighs 130 tons. They are all manufactured out of Indian steel and were partly erected at site and partly in Burn & Company's yard at Howrah, where they were launched and towed to site on a tide. After location, which is a very difficult operation necessitating the use of compressed air to reduce their draft, the space between the outer and inner sheets is filled with concrete after which the concrete steining is carried up by means of steel shuttering.

The dredging is being done with 100 cubic feet Bells Grabs worked by 15 ton electric cranes, two of which are of the Derrick pattern on steel pontoons and four of the overhead type running on a steel staging carried by two 1,000 ton flats braced 40 feet apart.

To obtain a suitable aggregate for the concrete used in the steining of the wells a Hadfield's " Heclon Gyratory Crusher Size No. 6 " has recently been installed in the nearest quarries, which are 200 miles away from the site of the bridge. This crusher, which is being driven by an old locomotive engine which was hauled up into the quarry and packed up off its wheels, gives an output of 40 tons an hour. The crushed stone falls direct from the crusher into broad gauge wagons and goes down to the site of the work in complete trains. On arrival at Bally the wagons are run out on to a timber jetty and by means of turntables fitted at each end are brought sideways on to the river. The stone is then shot down into barges through movable shoots fitted on the side of the jetty and taken out to the site of each pier by tugs.

Two direct coupled electrically driven Drysdale Vertical Sinking pumps capable of operating at any head up to 90 feet have recently been obtained, and are regularly used for " running " the wells, the method adopted for overcoming the skin friction.

A contract for the seven girders which weigh 2,500 tons each has just been placed with Messrs. Braithwaite & Company, who intend manufacturing them in their Clive Works at Garden Reach out of Indian steel as far as the section will admit, the balance to be of British steel.

In regard to erection of these girders, which is one of the biggest problems connected with the work, the intention is to put up a steel staging on screw piles between the first and second span (from the Calcutta side). Two openings of 60 feet will be left in the second staging into which the two 1,000 ton flats referred to above, will be brought. These flats will be fitted with a wooden superstructure, and will raise the main girders off the staging on a suitable tide. The flats, with about 2,000 tons of girders and superstructure, will then be pulled out clear of the staging and be breasted across the river to the required site where the whole will be hauled by winches into position and the girders allowed to drop down into their place on the pier on a falling tide.

One of the greatest troubles in connection with the work are the " bores " or tidal waves which come up the river regularly once a month and sometimes twice. They necessitate a complete stoppage of all work on the shallow or shoal side for from seven to ten days during each " bore " as all floating plant has to be removed to deep water moorings.

It is expected that the work will be completed and the line open to traffic before the end of 1930.

Bombay Back Bay Reclamation Scheme. The Present Position.—I am indebted to the Deputy Chief Engineer for the following brief note on the position of the Back Bay Project at the beginning of May, 1928 :—

The Back Bay Reclamation Scheme in its entirety contemplated the reclamation of about 1,150 acres from the sea in Back Bay on the west side of the city of Bombay. To do this reclamation, it was proposed to build a sea wall of the total length of about 21,600 feet, and to reclaim behind that sea wall by means of suction dredging from the bed of the harbour.

The area proposed to be reclaimed was divided into 8 sections of blocks. Much of the original scheme, however, is now in a state of suspension and all that it is at present proposed to do is to reclaim four out of the eight blocks, viz., Block Nos. 1 and 2, at the northern end, and 7 and 8 at the southern end, and to make a connecting road or marine drive between Blocks 2 and 7 along the existing foreshore. The areas of these four blocks which it is at present proposed to reclaim are :—

Block No. I	... ...	73	acres approximately.
Block No. II	... ...	78	,, ,,
Block No. VII	... ...	135	,, ,,
Block No. VIII	... ...	245	,, ,,

giving a total of 531 acres out of the original contemplated area of about 1,150 acres.

Of these blocks, which it is now proposed to reclaim, Block No. 8 will be sold to the Government of India for military purposes, and the remaining blocks will be developed partly for ordinary commercial and residential buildings and partly for open spaces, etc.

As far as actual construction goes, the present position is that the sea-wall has been completed except for a gap of about 1,900 feet length in the middle, which will be left open until such time as the remaining area is taken in hand. The dredging into Block 8 and into Block 7 has been completed, and a topping of earth which is being brought in by train is being deposited on the former block. The dredging into Block 1, which has been done not from the Harbour but from Back Bay has been completed, and when this has dried out, a topping of earth will be deposited on this block also.

Dredging operations have now been suspended for the monsoon, but will be resumed into Block No. 2 in November, 1928, after the monsoon. The main storm water drains required for the B.ocks 1, 2, 7 and 8 have been completed, but the auxiliary storm water drains, the sewers, the roads and the road-lighting in these blocks have not yet been taken in hand. They will be commenced as soon as the actual reclamation by dredging and topping of earth over the dredged material in these blocks has been finished. It is proposed to take in hand the road in continuation of Churchgate Street this year, as some part of the reclamation at the south end of Block 1 has been completed by dry filling brought by motor lorries.

The Rangoon Water Supply Project.—I am indebted to the Secretary to the Government of Burma in the Revenue Department for the following report on the schemes at present under investigation for a water supply to Rangoon. British contractors and manufacturers who may be interested should apply for further particulars to Messrs. Rendel, Palmer & Tritton, the Consulting Engineers, of Westminster, or should instruct their representatives in India to approach the Officer-in-Charge, Hydro-electric Survey, care of the Chief Engineer to the Government of Burma, in the Public Works Department, Irrigation Branch, Rangoon.

" Last year, Messrs. Rendel, Palmer & Tritton, Consulting Engineers, of 15, Dartmouth Street, Westminster, in conjunction with Messrs. Vattenbyggnadsbyran, of Stockholm, were commissioned to investigate a combined hydro-electric and water supply Scheme known as the Yunzalin Scheme.

This year, as the Consulting Engineers advised that the Yunzalin Scheme was too costly, they were commissioned to investigate as many sources of supply within reasonable distance of Rangoon as they could find with a view to arriving at an economical solution of the problem of supplying the city with sufficient water.

The schemes investigated were :—

(1) *The Irrawaddy River Scheme.*—This is a pumping scheme which will draw water from the river near Ngapeo village some 31 miles due west of Rangoon. The details of the plant required are not as yet definitely known, but there will probably be included a special design of pumping plant to cope with the variations of the river, a single or double pipe line some 35 miles long with special connections to the existing source of supply, a tunnel under or bridge over the Rangoon river, a complete purification plant and, perhaps, sedimentation basins. Boosting pumps may also be necessary.

(2) *The Myitmaka Scheme.* No proposals have been made in connection with this scheme. Although it is comparatively near Rangoon, it has several very objectionable features.

(3) *The Hlegu Scheme.*—This project is also unlikely to mature. It is complicated and depends on very large entirely artificial storage and sedimentation basins.

(4) *The Wagyaung, Paunglin or Pazundaung Creek Scheme.*—The water for this project will be obtained from an artificial reservoir formed by building a comparatively low and short earth dam across the Paunglin River valley at a point some 19 miles north of Hlegu. From this reservoir the water will flow by gravity to a purification plant and main pumping station near Mingaladon, and then be pumped to the high level reservoir on Kokine Hill.

The length of main pipe line will be about 32 miles with some 13 miles of double line connecting up the existing system to the new, etc.

(5) *The Intagaw Schemes.*—These are a series of reservoirs in small valleys near mile 44 on the Rangoon-Hlegu-Pegu road. They are all low lying and the water obtained from them would be treated in much the same manner as that from the Wagyaung reservoir except that an additional pumping plant will probably be required.

The main pipe line is shorter, some 25 miles in all.

The main pipes required for any of these schemes will be 72 in. or 78 in. in diameter, and it is likely that a complete metre gauge railway line will be carried throughout their entire length.

Electrically driven centrifugal pumps have been suggested for the pumping stations, but no information is yet available as to the type of water purification plant which will be employed."

The Howrah Bridge.—Since last year's report was written a fresh survey of the connected schemes of the electrification of the Calcutta suburban railway system and the construction of an adequate bridge over the Hooghly has been conducted by Major R. E. Gordon, R.E., of the Railway Board, in consultation with Messrs. Merz & Maclellan, the electrical consulting engineers. Major Gordon spent several months in Calcutta early in 1928 and acted throughout in close co-operation with the officials of the Calcutta Port Commissioners, the Improvement Trust and the Railway Companies. He has submitted his report to the Railway Board, but many difficulties remain to be overcome before a definite decision can be made. In the meantime, Messrs Rendel, Palmer & Tritton have suspended all work on the plans for the suggested new floating bridge over the river. The work of strengthening the existing bridge by replacing the old shore spans has been completed. This work will prolong the life of the existing bridge for many years, but the construction of a new bridge is urgently required on account of the rapidly increasing traffic.

The Grand Trunk Canal, Bengal.—In my last report I stated that consideration of this project had been remitted to a special committee appointed by the Governor of Bengal in Council to examine the anticipated revenue from the Grand Trunk Canal project in all its bearings, including the canal route and the harbours, and to report on the estimates of revenue and any matter

relevant to a consideration thereof. At the end of November, 1927, an official resolution was issued stating that, as Government had decided not to proceed with the project, the Governor-in-Council declared this Committee to be dissolved. It is understood that urgent representations have since been made by the Committee of the Bengal Chamber of Commerce and that, as a result of a note by the Consulting Engineer to the Government of India consequent upon a visit paid to the Sunderbunds steamer routes with representatives of the Irrigation Department and the joint steamer companies, the Government of Bengal have decided to review the whole situation once more.

CHAPTER V.

DETAILED EXAMINATION OF THE LEADING IMPORT TRADES WITH SPECIAL REFERENCE TO CHANGES IN THE CHARACTER, VOLUME AND ORIGIN OF THE IMPORTS DURING THE FISCAL YEAR, APRIL 1ST, 1927, TO MARCH 31ST, 1928.

Note.—Unless otherwise stated, the statistics in this section are drawn from the publications of the Department of Statistics, Government of India, and relate to imports on private account only. Since all Indian statistics are now given in rupees and not in sterling, and in view of the labour which would be involved in converting into sterling, the lakh of rupees (Rs.100,000 or £7,500 at 1s. 6d. exchange) has been taken as the usual unit. It is fully realised that this is not so convenient a unit as the £ sterling.

MANUFACTURED AND MAINLY MANUFACTURED GOODS.

Cotton Textiles.—*Yarns.*—The total imports of cotton twist and yarn showed a slight advance from 49,424,558 lb. valued at Rs.662 lakhs in 1926-27 to 52,344,034 lb. valued at Rs. 679 lakhs in 1927-28. The principal increases took place in bleached yarns (752,000 lb.), coloured yarns (606,000 lb.), and mercerised yarns (1,196,000 lb.). Grey yarns advanced by only 378,000 lb.

The following table gives the imports of grey yarns arranged according to counts :—

Counts.	1926-27 lbs.	1927-28 lbs.
Nos. 1 to 10	105,860	316,433
,, 11 to 20	709,876	1,744,098
,, 21 to 30...	430,723	398,432
,, 31 to 40	20,951,473	21,978,217
Above 40's	6,965,572	6,414,918
Twofolds	6,601,161	5,291,265
Total imports (grey) ...	35,764,665	36,143,363

The remarkable increase of over a million lb. of grey 11's to 20's is almost entirely accounted for by increased shipments from Chinese mills at very low prices. The advance in 1's to 10's was also secured by China. The reduction in counts above 40's was suffered by Japan, the United Kingdom increasing her share of this trade by over 112,000 lb. The reduction in twofold spinnings was borne by the United Kingdom and Japan.

The next table sets forth the details of the imports of bleached yarns :—

Counts.	1926-27 lbs.	1927-28 lbs.
Nos. 1 to 20	Not	4,658
,, 21 to 30	separately	79,134
,, 31 to 40	recorded	1,266,952
Above 40's	prior to	1,057,087
Twofolds	1927-28	2,405,281
Total imports (white) ...	4,061,521	4,813,112

The whole of the imports of 21's to 30's were drawn from the United Kingdom. Of 31's to 40's the United Kingdom supplied 1,171,872 lb. and Japan 94,000 lb. The counts above 40's were also drawn almost exclusively from the United Kingdom. Twofolds were obtained from the United Kingdom (1,550,000 lb.), Japan (774,000 lb.) and other countries (82,000 lb.).

Coloured yarns were imported as follows :—

Counts.	1926-27 lbs.	1927-28 lbs.
Nos. 1 to 20	252,280	399,425
,, 21 to 30	521,988	376,671
,, 31 to 40	3,453,901	4,059,345
Above 40's	596,928	564,470
Twofolds	544,921	576,079
Total imports (coloured) ...	5,370,018	5,975,990

The United Kingdom shipped practically the whole of the counts below 31's. Of 31's to 40's the United Kingdom supplied 2,647,000 lb. and other countries 1,412,000 lb. Above 40's the United Kingdom sent 434,747 lb. and other countries 129,723 lb. Twofolds were almost entirely drawn from the United Kingdom.

Imports of mercerised yarns were almost entirely confined to twofolds, the total imports of which amounted to 5,360,895 lb. Japan supplied no less than 5,073,030 lb. and the United Kingdom 286,665 lb.

The sources of supply of yarns of all kinds were as follows :—

Country of origin.	1926-27 Lbs.	1926-27 Rs. lakhs.	1927-28 Lbs.	1927-28 Rs.lakhs.
United Kingdom	20,016,156	3,08	20,559,141	3,09
Netherlands	486,435	9	587,965	9
Switzerland	691,130	10	484,059	6
Italy	313,612	4	425,256	6
China	945,032	8	12,866,303	1,20
Japan	26,619,033	3,20	16,974,830	2,24
Other countries	263,160	3	446,480	5
Total imports... ...	49,424,558	6,62	52,344,034	6,79

The reduction in the imports from Japan has been equalised by increased imports from the China mills, which are mostly owned by Japanese companies. The British position is practically stationary.

The most noteworthy event of the year was the passing, in September, 1927, of the Indian Tariff (Cotton Yarn Amendment) Bill, which, consequent upon the report of the Cotton Tariff Board and as a measure of protection for Indian mills, substituted for

the 5 per cent. *ad valorem* import duty on all cotton yarns an import duty of 5 per cent. *ad valorem*, or 1½ annas per lb., *whichever is the higher.* A study of the returns shows that the duty has had little effect on the imports of British yarns, which are usually counts of 40's and upwards of grey yarn and specialities which are of sufficiently high price that the 1½ anna per lb. duty is less than 5 per cent. and consequently the rate remains as before. The imports of yarn from China of counts below 40's has been phenomenal, but, as the new duty was only in force for half the year, it is probable that an undue proportion of these were shipped in the first few months of the year in anticipation of the protective measure. Sir George Rainy, in speaking on the Bill on September 6th, 1927, briefly recapitulated the position in the following terms:—

"In the first place there are the higher counts, that is, everything above 40's or at any rate above 50's. As regards these the effect of the duty must be very small. When you get to the really high counts, the 1½ anna duty is less than 5 per cent. and obviously therefore it cannot raise the price. When you come a little lower down to the counts between 60's and 40's, the increase in the price will be quite small. As far as I can make out from the figures in the trade returns, between 50's and 60's, the 1½ anna duty would not be such more than 6 per cent. and between 40's and 50's perhaps 7 per cent. As regards the counts below 30's, there are good reasons for thinking that the price cannot rise very much because the internal competition between the Indian Mills on these lower counts is so severe—the total imports being only about 2 million lbs. per year—that in all probability any rise in price which the duty might bring about would almost instantly be checked by an increase in the Indian production which would bring down the price again. Finally there are the medium counts from 31's to 40's and here it seems likely that the duty might raise the price of yarn by almost the full amount of the duty. It is in respect of these counts that the Indian Cotton Mills stand to gain and to a limited extent the handloom weaver stands to lose."

The production of the Indian mills compared with the imports is shown in the following statement:—

	Imports in lbs. (1,000)	Indian Mills. Production in lbs. (1,000)
Annual average for the five years 1909-10 to 1913-14	41,794	646,757
1923-24	44,575	617,329
1924-25	55,907	719,390
1925-26	51,688	686,427
1926-27	49,425	807,116
1927-28	52,344	808,911

The subjoined table compares by counts the quantities of imported cotton twist and yarn with the quantities produced in Indian mills:—

	1913-14 (pre-war year).		1924-25		1925-26		1926-27		1927-28	
	Imports.	Production.	Imports.	Production.	Imports.	Production.	Imports.	Production.	Imports.	Production.
	lbs. (1,000)	lbs. (1,000)	lbs. (1,000)	lbs. (1,000)	lbs. (1,000)	lbs. (1,000)	lbs. (1,000)	lbs. (1,000)	lbs. (1,000)	lbs. (1,000)
Cotton twist and yarn—										
Nos. 1 to 20	1,254	492,693	7,170	469,810	4,772	444,748	1,068	515,681	2,465	494,788
,, 21 to 25	896	123,995	477	154,672	543	142,759	483	168,345	416	182,221
,, 26 to 30	3,686	42,999	934	69,140	575	71,029	470	79,966	439	80,839
,, 31 to 40	23,657	19,712	27,687	19,368	26,294	19,738	24,405	27,657	27,305	33,757
Above No. 40	7,859	2,699	7,659	5,822	6,685	5,834	7,562	11,531	8,039	11,142
Grey and coloured two folds (doubles)	—	—	5,833	—	6,195	—	7,146	—	13,634	—
White, unspecified description and waste	6,819	679	6,147	578	6,624	2,319	8,291	3,936	46	6,171
Total	44,171	682,777	55,907	719,390	51,688	686,427	49,425	807,116	52,344	808,911

It will be noted that the Indian mill production remained almost stationary, the increased output of counts above 20's being offset by a reduction in spinnings below 20's, which were driven off the market by imports from China which were dumped into India at such low prices that competition became almost impossible. It will be interesting to see whether the additional protective import duty will suffice to protect the Indian mills against this competition after it has been enforced for a complete year.

The Bombay Millowners' Association in their report for 1927 state that the year opened with a stock of 34,000 bales of yarn, the monthly average stock was 35,000 bales, and the year closed with a stock of 39,000 bales. They add that :—

" the position in the yarn market continued unsatisfactory throughout the year, the rise in the price of cotton not being followed by a proportionate rise in the price of yarns. How serious the position has been may be judged from the fact that the number of inactive spindles went on increasing practically from month to month, and at the end of the year over a fourth of the spindles on site were idle. In spite of this, the stocks with the mills at the end of the year stood at a higher figure than at any other period during the year under report. The prices of 10's and 20's yarns which were 7 annas and 8¾ annas a pound at the end of 1926 reached their highest in the middle of September with quotations at 10½ annas and 12½ annas a pound. The year closed with prices at 9½ annas and 11½ annas a pound with very poor demand. For all counts of saleable yarn prices remained unremunerative more or less throughout the year."

Piece-goods.—The following table shows the quantitative imports of the three main classes of piece-goods for the last pre-war year and during the past four years :—

Year.	Grey (unbleached) Million yds.	White (bleached) Million yds.	Coloured, Printed or Dyed. Million yds.
1913-24	1,534·2	793·3	831·8
1924-25	845·5	548·9	407·0
1925-26	709·1	465·1	365·8
1926-27	748·4	571·0	447·4
1927-28	875·5	556·5	504·8

The next statement gives the *value* of the three main classes in the last pre-war year and during the past four years :—

Year.	Grey (unbleached). £	White (bleached) £	Coloured, Printed or Dyed. £
*1913-14	16,966,515	9,523,204	11,907,683
*1924-25	18,992,655	13,487,904	13,343,973
†1925-26	16,415,418	11,994,909	11,940,876
†1926-27	14,712,768	13,220,371	12,916,839
†1927-28	15,936,124	11,562,692	13,143,102

*At exchange of 1/4. †At exchange of 1/6.

The heavy fall in the values of bleached goods imported during the past year more than offset the slight increases in the grey and coloured varieties. The total yardage imported is still only 61

per cent. of that imported in 1913-14, but is 6 per cent. greater than in 1926-27 as a result of lower prices. The declared values per yard over the same series of years gives the clue to the position, which is, briefly, that the falling off in the imports of cotton piece-goods is in inverse ratio to the increase in their price.

Cotton piece goods.	1913-14	1924-25	1925-26	1926-27	1927-28
	Rs. As. P.	Rs. As. P.	Rs. As. P.	Rs. As. P.	Rs. As. P.
Grey (unbleached)	0 2 8	0 5 5	0 4 11	0 4 2	0 3 11
White (bleached)	0 2 11	0 5 11	0 5 6	0 4 11	0 4 7
Coloured, printed or dyed ...	0 3 5	0 7 10	0 6 11	0 6 2	0 5 9

VARIETIES OF PIECEGOODS IMPORTED.

Grey (unbleached).	1913-14 pre-war year).	1925-26	1926-27	1927-28
	Million yds.	Million yds.	Million yds.	Million yds.
Dhuties, saris and scarves ...	806·1	430·1	471·6	527·6
Jaconets, madapollams, mulls, etc.	150·4	57·0	72·6	78·9
Longcloths and shirtings ...	545·4	171·3	168·8	233·4
Sheetings	·2	30·4	18·3	23·0
Drills and jeans	21·3	19·4	14·9	11·2
Other sorts	10·8	·9	2·2	1·4
Total	1,534·2	709·1	748·4	875·5

White (bleached).	1913-14 (pre-war year).	1925-26	1926-27	1927-28
	Million yds.	Million yds.	Million yds.	Million yds.
Dhuties, saris and scarves ...	104·3	72·6	114·0	71·7
Jaconets, madapollams, mulls, etc.	307·9	186·8	234·8	224·5
Longcloths and shirtings ...	115·3	93·8	97·4	112·1
Nainsooks	204·7	77·0	65·9	93·0
Drills and Jeans	5·7	6·1	5·1	6·9
Checks, spots and stripes ...	16·1	7·0	12·3	14·1
Twills	8·3	12·2	11·8	14·9
Other sorts	31·0	9·6	29·7	19·3
Total	793·3	465·1	571·0	556·5

Coloured, Printed or dyed.	1913-14 (pre-war year).	1925-26	1926-27	1927-28
	Million yds.	Million yds.	Million yds.	Million yds.
Dhuties, saris and scarves ...	115·2	29·9	35·5	38·4
Cambrics, etc.	113·6	34·7	43·2	50·4
Shirtings	152·6	72·5	90·8	88·7
Prints and chintz	209·7	56·1	50·5	69·9
Drills and jeans	30·0	32·4	41·9	64·2
Checks, spots and stripes ...	19·7	10·7	17·0	18·4
Twills	31·4	20·4	29·0	40·5
Other sorts	159·6	109·1	136·5	134·3
Total	831·8	365·8	447·4	504·8

The increase of 56 million yards in the case of grey dhuties reflects the heavy purchases made in Manchester in December-January-February, 1926-27, when the raw material stood at 6½*d.* to 7½*d.* per lb. Similarly the increased imports of grey shirtings, amounting to no less than 65 million yards are an eloquent proof of the fact that the scale of India's imports of piece-goods are roughly in inverse ratio to their price. In December-January, 1926-27, when Manchester prices were at their nadir, qualities of grey shirtings were shipped which, owing to high prices, had not been purchased since the outbreak of war.

In white goods the reduction by 42 million yards of the imports of white dhuties, saris and scarves is most marked and is due to the transfer in the customs statistics from the beginning of August, 1927, of white yarn dhuties from the heading of white goods to that of grey goods.

The recovery in the imports of prints is encouraging, but the arrivals of these goods are only a third of pre-war quantities. Dyed drills and jeans and coloured twills show a satisfactory expansion.

Sources of Imports.

(1) *Grey Goods.*—

Countries of Consignment.	1926-27		1927-28	
	Yds.	Rs. (lakhs).	Yds.	Rs. (lakhs).
United Kingdom ...	588,781,540	15,24	651,160,996	15,54
China	1,790,000	4	7,048,400	16
Japan	154,865,422	4,23	214,773,511	5,46
United States	2,690,128	10	2,241,237	7
Other countries ...	283,886	1	313,773	1
Total imports ...	748,410,976	19,62	875,537,917	21,24

The notable increase in the yardage from the United Kingdom is satisfactory so far as it goes and represents the heavy purchases of grey dhuties and shirtings which were made during the first two months of 1927, when Lancashire cloth prices were low. Japan, however, improved her quantitative shipments to an equal extent and the increase in the value of her shipments is remarkable, pointing to the fact that a greater proportion of the higher qualities of grey goods was included. The increase in the shipments of grey shirtings, &c., from the Japanese mills in Shanghai, which represent the bulk of the imports from China, is noteworthy.

(2) *Bleached Goods.*—

Countries of Consignment.	1926-27		1927-28	
	Yds.	Rs. (lakhs).	Yds.	Rs. (lakhs.)
United Kingdom ...	550,284,568	16,57	526,753 340	14,20
Netherlands	5,955,971	25	7,505,704	30
Switzerland	8,643,416	45	12,176,183	56
Japan	2,881,728	9	5,598,521	15
Other countries ...	3,185,854	16	4,428,544	20
Total	570,951,537	17,52	556,462,292	15,41

The British share of the value of the reduced trade declined from 95 per cent. to 92 per cent., while the Continent and Japan correspondingly increased their proportions. This apparent reduction, however, is entirely due to a change in the method of classification adopted by the customs authorities. As the Collector of Customs, Calcutta, states in his annual report: " The decline is due to the transfer in our statistics, from the ' white ' to the ' grey ' head, of unbleached cloth woven in Lancashire from white Egyptian cotton. This change was made under general orders from the beginning of August, and in the eight succeeding months 41,694,530 yards of these ' white yarn dhuties,' valued at Rs.1,10,25,006, have been shown as grey cloth in the Calcutta returns."

(3) *Coloured, Printed or Dyed.*—This heading is made up as follows:—

Description.	1926-27		1927-28	
	Yds.	Rs. (lakhs).	Yds.	Rs. (lakhs).
Printed goods	176,854,152	6,13	235,343,234	7,53
Dyed goods	156,984,887	6,17	158,322,295	5,61
Woven coloured goods ...	113,603,188	4,92	111,175,803	4,38
Total imports ...	447,442,227	17,22	504,841,332	17,52

The improvement in the print trade is most satisfactory. The provenance of the imports was as follows :—

Countries of Consignment.	1926-27		1927-28	
	Yds.	Rs. (lakhs).	Yds.	Rs. (lakhs).
United Kingdom ...	318,300,188	12,58	352,210,938	12,59
Germany	3,022,526	20	2,644,414	18
Netherlands	13,697,487	75	12,069,810	61
Belgium	2,171,294	19	1,745,167	14
Switzerland	3,155,209	23	2,526,539	19
Italy	15,550,975	70	24,562,727	85
Straits Settlements ...	3,297,968	20	3,167,883	17
Japan	85,821,800	2,25	102,667,851	2,63
Other countries ...	2,424,780	12	3,246,003	16
Total imports ...	447,442,227	17,22	504,841,332	17,52

The reduction in Lancashire prices is clearly shown by the fact that the values of the British shipments remained approximately the same despite an increase of nearly 32 million yards in the quantity. Japanese competition in woven coloured goods and dyed goods is increasing rapidly. She also ships large quantities of printed flannelettes. Italian competition is most serious in printed flannelettes and twills, in dyed flannelettes and in coloured woven coatings and trouserings. The quality, dye and finish of the Italian goods is improving rapidly and Italian products now compete successfully with Lancashire in a constantly widening range of cloths.

(4) *Fents of all Descriptions.*—There has been a satisfactory advance in the imports of fents of all descriptions :—

Countries of Consignment.	1926-27		1927-28	
	Yds.	Rs. (lakhs).	Yds.	Rs. (lakhs).
United Kingdom ...	9,507,913	35	12,985,149	41
United States	11,442,782	29	23,246,640	52
Other countries ...	188,933	1	306,559	1
Total	21,139,628	65	36,538,348	94

American competition is becoming very keen. As I stated in my last report, this is largely due to the American attitude towards fents, which have hitherto been regarded in the United States as a waste product to be sold for what they will fetch. American shippers have therefore been able to place their fents on the Indian market at prices much below British quotations. It is to be hoped that the large firms of bleachers, dyers and printers in the United Kingdom will recognise this in future when disposing of their large stocks of fents to exporters.

Shares of the Principal Competitors in the total quantities of piece-goods imported :—

Countries of Consignment.	1913-14	1924-25	1925-26	1926-27
	Per cent.	Per cent.	Per cent.	Per cent.
United Kingdom	97·1	82·3	82·0	78·2
Japan	0·3	13·9	13·6	16·3
Holland	0·8	1·1	1·1	1·0
Italy	0·7	0·6	0·8	1·2
Switzerland	0·2	0·4	0·6	0·7
Other countries	0·9	1·7	1·9	2·6
Total	100·0	100·0	100·0	100·0

Indian Mill Competition.—The subjoined detailed statement gives the quantity (in pounds and their equivalent in yards) and description of the woven goods produced in Indian mills during the past three years. It will be noted that, in spite of the continued depression in Bombay and Ahmedabad, the total yardage produced in all-India rose from 2,259 million in 1926-27 to 2,356 million in 1927-28. The increase of nearly 100 million yards was principally made up of increased production of the following types of cloth :—

Grey Shirtings and Longcloth, an increase of 40 million yards.
Grey Dhuties, an increase of 30 million yards.
Grey Khaddar Cloth, an increase of 17 million yards.
Grey Drills and Jeans, an increase of 12 million yards.

The total weight of cloth of all kinds rose from 539 to 568 million pounds.

Description.		Twelve months, April to March.		
		1925-26	1926-27	1927-28
Grey and Bleached piecegoods—				
Chadars ...	pounds	22,787,297	24,137,331	25,819,802
	yards	62,075,591	65,555,014	66,824,306
Dhuties ...	pounds	110,134,379	123,121,505	129,701,309
	yards	516,394,318	585,705,264	615,937,386
Drills and jeans	pounds	18,106,061	20,177,031	22,912,951
	yards	74,150,144	79,703,504	91,197,644
Cambrics & lawns	pounds	580,764	664,147	986,274
	yards	3,168,432	3,385,935	5,479,124
Printers ...	pounds	6,003,983	4,856,262	4,608,509
	yards	25,871,997	20,899,248	20,245,960
Shirtings & long-cloths	pounds	120,019,866	134,771,604	140,831,481
	yards	521,125,944	580,536,490	620,027,624
T-cloth, domestics and sheetings	pounds	17,370,593	23,680,244	24,630,019
	yards	74,073,333	93,314,603	92,163,833
Tent-cloth ...	pounds	3,990,717	3,166,727	2,618,279
	yards	9,004,906	6,732,119	6,064,123
Khadi, Dungri or khaddar	pounds	30,444,405	35,809,549	41,485,317
	yards	87,406,216	98,670,894	116,118,753
Other sorts ...	pounds	9,826,309	11,326,965	9,873,922
	yards	41,034,924	42,734,703	40,943,836
Total ...	pounds	339,265,174	381,711,365	403,467,863
	yards	1,414,305,805	1,577,237,774	1,675,002,583
Coloured piecegoods	pounds	116,695,300	145,320,476	148,297,621
	yards	540,156,845	681,478,291	681,557,222
Grey and coloured goods other than piecegoods	pounds	3,726,511	4,151,302	4,205,147
	dozens	955,804	1,006,548	992,107
Hosiery	pounds	872,861	983,308	1,210,366
	dozens	316,546	351,919	437,215
Miscellaneous ...	pounds	3,772,129	4,289,142	5,828,863
Cotton goods mixed with silk or wool	pounds	707,712	2,313,760	4,794,002
Grand total ...	pounds	465,039,687	538,769,353	567,803,862
	yards	1,954,462,650	2,258,716,065	2,356,559,805
	dozens	1,272,350	1,358,467	1,429,322

The Committee of the Bombay Millowners' Association, in their review of the year 1927, state :—

" It is generally anticipated that the cotton mills of Bombay as a whole will show better results for the year 1927 than during the preceding year, or in other words, the combined losses for 1927, taking depreciation into account, will not be as heavy as in previous years. From the balance sheets of a few concerns already published it may be assumed that such expectation is certain to be realised. This, however, by no means indicates that there has actually been a healthy trade recovery or that the difficulties which confronted the industry have disappeared or even materially diminished. The profits earned

are in most cases merely due to the purchase of abnormally cheap American cotton and the rise in the cotton market after such purchases were made. Had the industry really prospered, stocks of both yarn and cloth would have diminished during the year under review. On the contrary, stocks at the end of the year showed an increase of about 30 per cent. for cloth and 15 per cent. for yarn in spite of the fact that on an average about 10 per cent. of looms and 20 per cent. of spindles had remained idle during the year. Even those mills which have shown fair profits for the year were actually working at a loss during the last two or three months of the year when they had not the advantage of the cheap American cotton, the same having been used up. Again, if we turn to import figures, it will be clear that the competition during the year was even keener than before, and under the circumstances it was scarcely possible to sell our own products at remunerative rates. The total imports of piecegoods of all descriptions into Bombay rose from 362 million yards in 1926 to 460 million yards in 1927 or an increase of about 27 per cent. It should be noted that imports from Japan alone rose from 82 million yards in 1926 to 115·9 million yards in 1927 or a rise of 40 per cent. Similarly, if we take combined imports from the United States, Italy and Switzerland, there was an increase of about 50 per cent.—from 35·6 to 52·4 million yards. Imports of yarn also rose from 32 million pounds in 1926 to 42 million pounds in 1927, showing an increase of about 28 per cent. These figures give a clear indication of the depressed state of our industry. Before entering into a detailed survey of the state of the cotton, yarn and cloth markets during the year 1927, it must be stated that the outstanding event of the year was the publication of the Textile Tariff Board Report and the Resolution containing the Government's decision thereon. This decision was subsequently modified to a certain extent and a Bill giving some relief to the purely spinning section was passed by the Assembly. Since this meagre relief was granted, the industry has by no means improved in spite of various economies effected, and it appears that it is not likely to revive in the near future unless Government resolve to grant protection to the industry on the lines recommended in the Majority Report.

The cloth market remained in a most unsatisfactory state. While till the end of April prices showed an improvement following cotton, and stocks did not increase appreciably, with the unsettled state of the cotton market in May and June, confidence of the buyers was shaken and stocks began to rise rapidly, although nominal quotations remained steady. With the feverish activity in cotton that set in after the publication of the first Bureau report in August, the cloth market also became active on speculative buying based on cotton crop reports, without any actual demand from consuming centres. As a result mill stocks, which stood at their highest at the end of July, showed a welcome decrease which, however, was not large, as most of the purchases were of a speculative nature. But as cotton prices showed continuous weakness from the middle of September till the end of November, which is normally the buying season for cloth, much of this speculative purchase was thrown back on the market at considerable loss, and stocks at the end of the year stood at a figure representing more than 2½ months' production. As regards prices, standard longcloth which at the beginning of the year was quoted at 13¼ annas per lb. reached the height of 17½ annas, at which rate sales are reported to have been made among bazaar dealers, but no sales were made by mills at these rates, the highest rate at which sales were made by the mills being reported at 16½ annas per lb. The rate at the end of the year was 15 annas a lb. with demand on a moderate scale."

The year opened with a stock of 121,000 bales of cloth held by the Bombay mills, the monthly average was 135,000 bales, while at the end of the year the returns showed a stock in Bombay of 152,000 bales.

A serious strike of operatives in the Bombay mills broke out in April, 1928, and at the time of writing (June, 1928), is still in progress. The mills are closed, a large proportion of the operatives have returned to their homes in the mofussil and the dispute shows no signs of being settled. Meanwhile, the uncleared stocks of cloth have fallen from 159,000 bales at April 30th to 134,000 bales at May 31st and 109,000 bales at June 30th. Prices have not advanced to the extent which was anticipated.

The Indian Trade Mission.—In accordance with the recommendation contained in paragraph 101 of the report of the Indian Tariff Board (Cotton Textile Industry Inquiry) the Government of India in January, 1928, announced its intention of sending a Trade Mission to certain countries in the near East and in Africa to make a survey of their potentialities as markets for Indian cotton goods and to make recommendations for the encouragement of the export of cotton manufactures from India, including the appointment of Indian Trade Commissioners where desirable. The Mission, which consisted of Dr. D. B. Meek, O.B.E., Director-General of Commercial Intelligence and Statistics, as Government representative, and Mr. T. Maloney, M.C., Secretary to the Bombay Millowners' Association, as the representative of the Indian cotton textile industry, accompanied by Mr. Jeevandas Purshotam Dutia, of Messrs. Lalji Naranji & Co., as technical adviser, left Bombay for Bushire on January 27th, 1928, and visited Bushire, Basra and Baghdad before proceeding by the desert route to Palestine, Syria, Constantinople and Egypt. They are at the present moment (June, 1928) in South Africa, and before returning to India will have completed a survey of the prospects in the Union and also in the East African Dependencies.

Certain of their interim reports have been forwared to the Department of Overseas Trade, to whom inquiries with regard to the further progress and results of the Mission should be addressed by British firms who may be interested.

Conditions in the Large Import Markets.—Calcutta.—A leading authority in the piece-goods trade states:—

"The good effect of the resolution of the Calcutta Marwari Chamber of Commerce restricting forward buying during the latter half of 1926 was felt in the beginning of 1927, and as stocks at this period were very low, the condition of the market became healthy and a period of considerable activity was experienced during the first half of 1927. A further factor which contributed to the improved trade conditions was that American cotton in Liverpool had fallen to below 6½d. in December, 1926, and when business was resumed, manufacturers' prices were considered to be on a safe basis by piece-goods dealers. The Indian mills also took advantage of the activity and put through a substantial and profitable business during these months. From June to October the demand was spasmodic and as manufacturers' prices were on a much higher level than those ruling locally, business was restricted. During the last quarter of the year, which is the best selling season, the off-take from the bazaar was comparatively poor and the market continued more or less inactive except for a temporary revival in December. In November,

the Members of the Marwari Chamber of Commerce, with a view to checking overtrading, resolved not to buy any goods shipped during April-May and September, 1928.

The year 1928 opened with heavy stocks and demand from the consuming markets poor. Manufacturers' prices, in sympathy with the gradual rise in cotton, were put up, but bazaar prices have not responded and the business done so far in Calcutta is of small dimensions. In April, the Members of the Marwari Chamber further resolved not to buy Whites shipped during June-July, 1928.

General.—In Continental goods and particularly in goods of Italian production, in both printed and fancy styles, there has been a marked increase in imports during the period under review. This increase is especially noticeable in the artificial silk styles, which owing to their comparative cheapness, find a ready sale in the Indian markets.

The imports from Japan also show a considerable increase. The following percentages of the imports of Japanese goods into Calcutta during the last three years are significant :—

1927	...	...	...	27·98%
1926	...	...	...	22·92%
1925	...	...	...	16·55%

Besides the standard lines of dhuties and grey shirtings, Japan has been paying more attention to fancy styles also, which are arriving in increased quantities."

Bombay.—The following note has very kindly been provided by the head of one of the leading import firms in Bombay :—

" During the period from 1st April, 1927, to 31st March, 1928, no outstanding features have presented themselves. The usual movements in Home prices, occasioned by fluctuations in the value of the raw material, have been witnessed.

Whites.—The commencement of the period under review marked practically the lowest point in values touched during the year, which was followed by a steady upward movement until September, 1927, when values again gradually declined and materially lower prices were witnessed in December and during the early months of the year 1928. Unfortunately when the above advance was being registered Home values were not fully reflected in consuming markets and a good deal of profitable business was missed on the rise. When the decline set in, however, both import houses and dealers had replaced stocks and money was lost in consequence. It was during this period that Kathiawar and Guzerat, which are amongst the principal consuming centres for Bombay imports, reflected the true conditions caused by the floods of last year, and goods which had been bought in anticipation for the usual requirements of these districts had to be disposed of in other markets at a loss.

Prints.—It was at the commencement of this period that Manchester shippers broadcasted the information that dealers could obtain substantial reductions if they placed orders in larger quantities than they had done in the past as the cost of production was materially lessened by " printing runs." With a few exceptions dealers took advantage of these concessions and overtrading was the result. In consequence, we find that to-day our market is full of printed sorts which are extremely difficult to move, even at a discount, owing to the poor demand resultant from months of congestion in these lines.

Fancies.—As regards fancies, over-trading in these has also been general and although stocks up-country are said to be comparatively low, in Bombay they are decidedly above normal.

Another point worthy of notice has been the lack of demand from Persia. Under normal conditions exports from Bombay to Persian Gulf Ports are considerable, but Russian manufacturers are now able to undercut our prices,

and we find that business is falling off considerably and will continue to do so unless other arrangements supersede the present trade agreement between Persia and the Soviet Government.

General.—Generally speaking, Indian dealers have little to show for their year's trading, and after liquidating their present commitments, many will show balances on the wrong side.

Japanese Piecegoods. A survey of last year's piecegoods trade would be incomplete without some reference to imports from Japan which are steadily increasing and are a menace not only to Lancashire, but to Indian mills themselves. We may go so far as to point out that the biggest lines imported from Japan are grey shirtings and grey sheetings, both of which are abundantly produced by mills in this country. The reasons that make it possible for Japan to compete in this respect are too well-known to need reiteration here, but their serious effect should not be lost sight of. During the calendar years 1926 and 1927 Japanese imports were as under :—

1926	...	...	232,060,472 yards
1927	...	...	333,810,456 ,,

thus showing an increase of over one hundred million yards during the latter year. Besides this, Japan competes with the Indian mills' export trade to a crippling extent."

Karachi.—The following report was sent to me in May by an experienced Karachi correspondent :—

" During the period April to October bazaar prices increased gradually by about 25 per cent., and the tone was healthy. A good business was done, and dealers made quite satisfactory profits. They lost a portion of these profits in October-November-December, however, as rates declined about 12 per cent., this being mianly due to the fall in the price of cotton. From the end of December to the middle of February prices again appreciated about 3 per cent. or 4 per cent. (the price of cotton having risen) and demand was good.

Ready goods were disposed of very satisfactorily, and a fair business was done for shipment in April-May-June, especially in Whites. From the middle of February to the end of March bazaar prices suffered a decline of about 4 per cent., there being a falling off in demand from up-country, this being due to consumers' requirements having been filled in previous months. The lamentations emanating from Lancashire during this period regarding the unsatisfactory position of makers did their share in causing a decline. Such decline was not, however, a serious one.

On balance, the dealers made money during the year, and one can say with pleasure that they are undoubtedly using more care and forethought in their operations than was the case formerly. In the old days the dealers needed little encouragement to speculate and buy in excess of their likely requirements, but they have now changed their methods for the better.

Stocks.—At the end of March stocks were estimated to be in the neighbourhood of 25,000 packages, this being below normal. Stocks up-country were also small.

Prospects.—The outlook is considered to be good, because dealers are not overloaded with purchases. A gret deal depends, of course, on the Manchester market, and on the attitude of those responsible for the publication of the unsettling Cotton Bureau reports. Given something approaching normal conditions, however, there is every reason to hope for at least a fairly satisfactory year."

Another prominent Karachi importer writes :—

" For this market and its districts the year was quite a normal one (according to the Karachi Chamber of Commerce lists, the total imports of

foreign goods were only about 9,400 packages less than the previous year, which was a big one). The demand generally was good and, in fact, clearances often outpaced arrivals with the result that stocks in Karachi were almost all along, and are still, very low. Yet the year was not very profitable to dealers and their anxiety to clear their holdings quickly made them sometimes miss a better profit and sometimes face a small loss. There was all along some little lack of confidence among dealers, most of whom, however, regained courage during the last few months owing to the steadiness of the Home market. The recent brisk advance of the latter has practically put a stop to any fresh business at present."

Madras.—The Collector of Customs, in his report on the Seaborne Trade of the Madras Presidency for the year 1927-28, states :—

" The total imports of cotton goods declined by Rs.86·37 lakhs or by 19 per cent., which may generally be attributed to the following causes :—

(*a*) Restricted trade due to unfavourable agricultural conditions prevailing in the Presidency ; (*b*) Lack of incentive to new business owing to continuous decline in prices ; (*c*) Overstocked state of the market ; and (*d*) Indian-made piecegoods competing with the imported article.

The imports of cotton piecegoods (including fents) fell by 21 per cent. in quantity from 83·31 million yards to 66·12 million yards, and by 24 per cent. in value from Rs.299·15 lakhs to Rs.226·82 lakhs, the decrease being shared by all the important classes of piecegoods.

Grey cotton goods fell by 9·62 million yards or nearly 26 per cent. in quantity from 37·33 million yards to 27·72 million yards, and by 29 per cent. from Rs.122·64 lakhs to Rs.86·53 lakhs in value. The average price per yard dropped from Re.0-5-3 to Re.0-4-11. The chief types of grey goods are (1) plain grey and (2) bordered grey. Under plain grey, the two main varieties which are largely imported are (*a*) jaconets, including madapollams, mulls and cambrics, and (*b*) longcloth and shirtings ; and under bordered grey, dhuties, saris and scarves form the largest item. The imports of jaconets, etc., under plain grey amounted to 14·37 million yards valued Rs.47·10 lakhs as compared with 20·93 million yards valued Rs.68·71 lakhs, the United Kingdom being the main source of supply (14·36 million yards), while arrivals of longcloth shirtings totalled 5·97 million yards, valued Rs.17·14 lakhs, as compared with 6·37 million yards, valued Rs.19·54 lakhs, the United Kingdom again being the main contributor. Under " bordered grey," the arrivals under " dhuties, saris and scarves " decreased from 9·81 million yards to 6·75 million yards in quantity, and from Rs.33·67 lakhs to Rs.20·32 lakhs in value.

The imports under " white (bleached) goods " declined by 15 per cent. in quantity from 30·21 million yards to 25·59 million yards and by 22 per cent. in value from Rs.115·91 lakhs to Rs.90·26 lakhs, to which the United Kingdom contributed 25·17 million yards as against 29·90 million yards in the preceding year. The principal varieties under this class of goods are (in order of importance) :—(1) mulls ; (2) dhuties, saris and scarves ; (3) nainsooks ; (4) jaconets, madapollams, cambrics, and muslins ; (5) longcloth and shirtings ; and (6) twills. Heavy decreases occurred during the year under all the above named varieties. The average price per yard went down from Re.0-6-2 to Re.0-5-8.

Under coloured goods there were three types, viz., (1) printed, (2) dyed, and (3) woven. The imports under " printed goods " dwindled from 9·35 million yards to 6·49 million yards in quantity, and from Rs.33·86 lakhs to Rs.23·58 lakhs in value, while those under " dyed goods " went up from 5·73 million yards to 6·20 million yards in quantity, and from Rs.23·37 lakhs to Rs. 25·82 lakhs in value owing to larger arrivals of saris and scarves, which rose by nearly 37 per cent. in quantity from 1·77 million yards to 2·42 million yards, and by about 42 per cent. in value from Rs.7·07 lakhs to Rs.10·08

lakhs. The foreign import trade under "woven coloured goods" is not of much importance since the arrivals under this class of goods are usually small, the consumers in the Presidency preferring country woven goods to those woven in foreign countries. The total imports under coloured goods diminished from 15·75 million yards to 12·80 million yards, the United Kingdom being the main source of supply. There was not much variation in the imports of cotton manufactures other than piecegoods.

In the total imports of cotton goods, including twist and yarn (which aggregated during the year to Rs.357·74 lakhs) the share of the United Kingdom was Rs.335·71 lakhs or 94 per cent., and that of Japan Rs.2·55 lakhs or only 1 per cent. as against 91 and 6 per cent. in the preceding year."

An importer in Madras reports as follows :—

"*English Piecegoods.*—1st Quarter (April, 1927 to June, 1927). There was good demand in the market and the dealers were able to dispose of their goods with profit.

2nd Quarter and 3rd Quarter (July, 1927, to December, 1927). The market became very dull and prices declined. Dealers were only able to dispose of their goods at a loss. The Deepavali (October) sales of the year did not come up to expectations.

4th Quarter (January, 1928, to March, 1928). The market gradually improved and the local rates also increased. The dealers were able to dispose of their stocks profitably to some extent. On the whole the official year 1927-28 was a fair one. Dealers did not sustain any loss and stocks also have been considerably reduced.

Japanese Piecegoods.—Japan succeeded in killing the English grey shirting business on account of much lower prices. The Japanese are now trying to compete with English jaconets, etc., which they are manufacturing on a limited scale and are selling at lower rates than the Lancashire cloths. As regards the stock of the Japanese goods in the market, we cannot exactly say, since Japanese goods land mostly at Bombay. Apart from these the Japanese business is entirely in the hands of Marwari merchants, from whom the local dealers always purchase.

Present Position.—The market is dull with retail sales and small enquiries from up-country. There has been a slight advance in the selling prices of Grey and White Mulls on account of shortage of stocks, but it is anticipated that the prices are likely to be reduced in view of the quantity of goods expected shortly. Coloured goods are moving off on a small scale and prices are steady. The present stock in the market is estimated to be about 5,000 packages or a little more, of which Grey Mulls form the major portion.

Future Prospects.—The goods ordered for shipment up to June, 1928, are expected to be disposed of easily and profitably, since the arriving stocks are moderate. The future condition of the market depends chiefly on the expected out-turn of the new cotton crop and the position of the Home market. On account of the recent lock-outs of the various mills in the Bombay Presidency there may be a good demand for English piecegoods and mill cloths in this market.

Imports of Yarn.—During the early part of 1927 we were on a low basis for raw cotton, the result being that a fair weight of yarn was booked, including a certain quantity of 40's, importations of which count for the past few years had been negligible. Generally speaking, the period under review was healthy from the bazaar point of view.

As regards the coming year, in view of the present price of cotton, we are afraid there will be very little, if any, 40's imported, Japanese and Chinese being much cheaper. We anticpate importations of other qualities will also be less unless of course prices cheapen considerably in the meantime. Our market is by no means over-stocked and one can anticipate fair business, but as stated we do not think the same volume will pass through as the previous year."

Delhi.—A banker writes as follows :—

" The first six months of the year 1927 were uneventful and for the most part dull. The absence of heavy stocks coupled with higher prices ruling in Manchester were responsible for continued steadiness in values.

In woollens and cheap fancies, French and Italian goods got a firm hold of this market, but in whites and coloured goods Manchester was still unbeaten.

The closing six months of the year saw a revival in the piecegoods trade, and dealers made good profits on their sales.

Stocks of winter goods carried over from last season were low, while arrivals were about 20 per cent. below normal. Demand set in just before the *Pujahs* and by *Dewali* about 60 per cent. of the stocks were cleared with a good return to dealers.

Business in summer goods was difficult owing to the uncertainty of the price of cotton. Sales slackened off after the *Holi* festival owing to the unseasonable weather and the prevalence of plague in the consuming mofussil centres.

A fair amount of forward business in winter goods has been booked, mostly with the Continent, and given a good monsoon, prospects would appear to be favourable."

Another correspondent writes :—

" A noteworthy feature of the market has again been the increased demand for Continental goods, chiefly Italian, which, on account of their low price, receive preference. A distinct improvement is noticeable in the quality and design of Indian mill goods, the demand for which steadily increases. Dealers' profits have again been very small."

Amritsar.—A banking correspondent writes as follows (June 13th, 1928) :—

" Imports from Manchester during last year consisted principally of White Shirtings, Mulls, Italians, Brocades, Warp Satins and Twills, prices for which fell about 10 to 15 per cent. during the year. During the last two months home prices have advanced by 5 per cent. over those ruling in January and February, but in the absence of a similar rise in local prices fresh business has been considerably restricted. Present stocks have been of late accumulating, presumably owing to heavy imports and poor demand by the agriculturists.

Imports of woollen goods from Bradford, namely rugs, shawls, tweeds, coatings and flannels were considerably smaller than those from the Continent. Imports on the whole, including those from the Continent, were heavier than those effected in 1926. Prices in general witnessed a decline of 15 per cent. with the exception of those for shawlcloth, business in which line was placed at about the figure quoted in 1926. Dealers in rugs made in Italy found it difficult to effect clearances advantageously, and towards the end of the season had to offer their stocks at 5 to 7 per cent. discount. Some considerable stocks are reported to be still lying unsold, and will not be disposed of until next cold weather.

At present home prices for piecegoods are out of parity with those ruling here, but in the opinion of the trade it is anticipated that in consequence of the absence of orders going home, home prices will, in the course of a month or so, fall in line with the local prices when repeat orders will be placed. Local stocks are, however, sufficient to satisfy the demand of the mofussil buyers in the meantime, and should fresh orders to Manchester be delayed for another month, we hope to see stocks go off satisfactorily."

Cawnpore.—An Exchange banker in Cawnpore writes that :—

" Although for some years Cawnpore has been losing its importance as a distributing centre in favour of Delhi and Amritsar, business during the past

year has been fairly well maintained. The uncertainty with regard to prices has restricted business and stocks may be said to be moderate. Continental competition has resulted, here as elsewhere, in fewer orders going to Manchester."

General Forecast (June, 1928).—From the market reports quoted above, all of which have been received from reliable authorities, it will be observed that while dealers made good profits on their imports of piece-goods during the first eight months of 1927, trading was considerably restricted during the cold weather of 1927-28 and the hot weather of 1928 owing to the comparatively high level of Manchester prices. An increasing and lucrative business in Japanese and Continental goods was the main feature of this period. Stocks throughout the country are fairly light, and it is anticipated that the arrivals of goods during the next few months will be disposed of without any difficulty. Future prospects depend entirely on the course of Manchester prices which, in turn, hinge upon the out-turn of the new cotton crop. The publication of the first American Bureau report on July 9th, showing an increase in acreage of 11 per cent., brought about a sharp fall in the price of cotton. Importers in India now await the issue of the second report on August 8th, and show no disposition whatever to commit themselves beyond October shipment until the situation becomes clearer. There is a general belief that, before the end of the year, Lancashire prices will be on a very much lower level. It is generally accepted that India cannot afford to buy on any extended scale on the basis of shilling cotton. Should the price of the raw material, however, recede to, say, 8*d.* or even 9*d.* per lb. and cloth prices follow suit, which they probably will if Indian purchases are withheld, there is every likelihood of heavy purchases being made for January-February-March shipment.

The general factors are all favourable. The first official monsoon forecast was issued on June 6th and predicts that the monsoon rainfall is likely to be normal or in excess in the Peninsula and north-west India. This is as favourable a forecast as is ever issued by the Meterological Department, and it may be anticipated that the rainfall this year will be adequate and that, for the sixth year in succession, India will be blessed with abundant harvests and consequent prosperity to the cultivators.* The political horizon is as clear as it has been for many years. Dealers have regained confidence since the difficult years succeeding the slump. They have now, generally speaking, more capital to invest in piece-goods owing to the profits of the past two years, and are undoubtedly less inclined to speculate and buy in excess of their likely requirements than was the case some years ago. The stabilisation of the rupee also eliminates the speculative element from exchange. One can therefore regard the future with a certain feeling of restrained optimism.

* See footnote on page 20.

Raw Cotton.—The following statement, taken from the Indian Trade Journal, compares the estimates of the total outturn of cotton in India for the last two years with the sum of exports and internal consumption. The figures of mill consumption are those supplied by the Indian Central Cotton Committee, and refer in the case of mills in British provinces to Indian cotton alone. The estimate of mill consumption in Indian States refers to all cotton, but it is presumed that little foreign cotton has been consumed in Indian States. Import figures have not therefore been taken into consideration for the purposes of the comparison set forth below. A conventional estimate has been made for extra factory or local consumption. It should be borne in mind that estimates of the " Carry-over " from one year to another have not been taken into account owing to complete information not being available regarding stocks :—*

	Year ending 31st August, 1927 Thousand bales (400 lb.)	1926 Thousand bales (400 lb.)
Exports to United Kingdom	85	153
,, to Continent (Europe, excluding United Kingdom)	832	1,034
,, to Far East	1,872	2,550
,, to other countries	41	38
Total	2,830	3,775
Home consumption—		
Mills†	2,044	1,983
Extra-factory or local‡	750	750
Total	2,794	2,733
Approximate crop	5,624	6,508
Estimated in forecast	5,003	6,250
Excess (+) or deficit (−) neglecting carry-over ...	+621	+258

The next statement shows the stocks of cotton held by Indian mills on August 1st, 1927, and on February 1st, 1928 (in bales regardless of weight), and is published by the Bombay Millowners' Association :—

*Stocks of cotton in Bombay were 387,000 bales on 31st August, 1926, and 437,000 bales on 31st August, 1927.

†The figure of mill consumption is that compiled by the Indian Central Cotton Committee, Bombay, on the basis of returns made under the Indian Cotton Cess Act.

‡Conventional estimates.

	Bombay City and Island.		All-India.	
	16-7-27.	1-2-28.	16-7-27.	1-2-28.
Cotton Mill Stocks (in actual bales regardless of weight)—				
(*a*) American (linters and waste not included)	78,107	16,179	117,234	23,328
(*b*) East India	144,279	128,034	684,484	531,171
(*c*) Egyptian	396	345	1,571	810
(*d*) Sundries	7,857	4,843	22,812	11,145
Total	230,639	149,401	826,101	566,454

Figures extracted from the Cotton Census taken by this Association at the instance of the International Federation of Master Cotton Spinners' and Manufacturers' Associations.

The Bombay Millowners' Association, in their annual report for 1927, state that:—

"The year opened with a steady undertone with Broach April-May at Rs. 254, and showed a more or less steady rise, the gain in January being Rs.12. This rise continued during February, when for the first time after a long period, towards the close of the month prices rose to over Rs.300. The American markets also showed during these months a similarly steady rise, the March contracts opening at 14·18, gaining about 150 points during the two months. The month of March saw even greater daily fluctuations, the highest and lowest being Rs.310 and Rs.286, following fluctuations in the American markets on reports of expected reduction of acreage for the new crops and the passing of the Farmers' Relief Bill by the American Senate and its vetoing by the President. In the month of April there were two conflicting factors which were responsible for the very wide fluctuations in the market—excessive floods in America and a financial crisis in Japan. The range in local prices during the month was Rs.274-8 to Rs.310-8, the tone of the market towards the end of the month being very strong.

Business in 1928 Broach was allowed from 2nd May, prices opening at a premium of Rs.11 over old crop contracts for May delivery, which were quoted at Rs.300 July-August, being then quoted at Rs.305. The advance in prices continued practically throughout the month, the closing being very nearly the highest for the month. The continued rise was entirely due to reports of unfavourable weather and increased boll-weevil infestation, and was checked when in the beginning of June, better weather reports were circulated. The month of June saw some wide fluctuations both here and in America, although at the close of the month prices were at the same level as at the beginning. But about the middle of July prices rose rapidly, January contracts being quoted in America at about 19½ cents, a rise of nearly 200 points, the highest price reached here being Rs.394-4 for April-May, 1928, Broach contracts, a gain of about Rs.50 in the month. From this high level, on publication of Hester's carry-over figures and indications of a crop of about 15 million bales, prices heavily reacted, losing in less than a week more than 225 points in America, with a similar but smaller decline in the local market. The publication of the first Bureau report indicating a crop of 13½ million bales only sent the prices up, soaring before another week was over to the 20 cent level, and a regular Bull fever appeared to take possession of the market following reports of bad weather, and the publication of the second Bureau report confirming the deterioration in crop and giving an estimate of 12,692,000 bales sent prices up, January contracts nearly touching 24¾ cents and the local market

registering Rs.490 in the late hours of the 8th September. A crop estimate of 12½ million bales was regarded as very bullish, and yet, curiously enough, the rapid rise in prices seemed to have sapped the vitality of the market, for from this point onwards, the market continued to sag heavily with intermediate rises which could not be maintained. In the short space of a fortnight, between 8th and 23rd September, prices showed a net decline of about 4½ cents. From thence onwards with crop prospects practically remaining the same, the market was very unsettled with frequent and large rises and falls, but always in the nett result showing a decline in prices. Fluctuations were also wide, the difference between the highest and lowest prices in New York on the same day being more than 100 points at times, and differences of 50 points being frequent. The local market did not show quite the same heavy variations. The second lowest prices for the year were reached in New York on the 13th December, when January was quoted at 17·90 cents and here on the 14th instant when Broach was sold at Rs.357-8. The second half of December saw a hardening of prices, and the markets closed with a steady tone with New York January at 19·58 cents and Broach at Rs.386-8."

The following table shows the imports of raw cotton into India during the past two years :—

Countries of consignment.	1926-27		1927-28	
	Tons.	Rs. (lakhs).	Tons.	Rs. (lakhs).
United Kingdom	5,003	45	661	8
Persia	1,136	12	1,067	10
Egypt	262	3	559	8
Kenya Colony	12,681	2,12	13,067	2,01
Tanganyika	780	13	280	5
United States	25,039	2,11	49,662	4,35
Total imports (all sources) ...	45,676	5,03	65,814	6,72

The phenomenal advance in the imports of American cotton is due to the reduction in the margin between the price levels of American and Indian cotton until, at the end of 1926, it was entirely eliminated with the result that the Indian mills purchased unprecedentedly large quantities of the American staple at very low prices, which materially helped them during a difficult year. The imports from the United Kingdom represent American cotton shipped from Liverpool. It is interesting to note that this trade has declined now that direct connections between Bombay and New York have been established.

Cotton Sewing Thread.—The imports were as follows :—

Countries of origin.	1926-27		1927-28	
	lbs.	Rs. (lakhs).	lbs.	Rs. (lakhs).
United Kingdom	1,711,226	66	1,940,565	67
Other countries	346,145	8	426,134	10
Total imports ...	2,057,371	74	2,366,699	77

The imports from other countries were drawn from Austria, Holland and Belgium, the two last probably representing German sewing cottons shipped from Rotterdam and Antwerp.

Artificial Silk.—*Yarns.*—The imports of artificial silk yarns are increasing at a very rapid rate :—

Principal countries of consignment.	1926-27		1927-28	
	lbs.	Rs. (lakhs).	lbs.	Rs. (lakhs).
United Kingdom	654,617	14	2,277,315	47
Germany	232,079	4	130,739	3
Netherlands	358,287	7	505,900	11
Switzerland	428,051	8	283,288	6
Italy	3,843,179	64	3,431,879	66
Other countries	259,884	5	880,448	16
Total	5,776,097	1,02	7,509,569	1,49

The extraordinarily rapid advance in the imports of Indian yarns appears to have been checked and, as I forecasted in my last report, the year under review gives a more correct indication of the position as the large stocks of Continental yarn have been disposed of and the Indian mills are now consuming greatly increased quantities of artificial silk yarns of the higher grades, in which the United Kingdom specialises, for use as warps in mixture cloths. Moreover, the activities of the local branch in India of the leading British producer are making themselves felt.

Hitherto most of the yarns imported have been used by the handloom weavers in northern India and Madras, who are usually indifferent to quality and whose main desideratum is low price. This accounts for the large consumption of cheap Italian and other Continental yarns. Indian millowners, however, are now taking a keen interest in the production of cotton and artificial silk mixtures, and as they are much more particular with regard to quality, it is expected that the share of the British product will continue to increase. The rapid extension in the number of British factories producing artificial silk yarns will also be a further favourable factor.

The very great increase in the imports of artificial silk yarns has also been stimulated by the passing in September, 1927, of the Indian Tariff (Amendment) Bill, which reduced, *inter alia*, the import duty on artificial silk yarns from 15 per cent. to 11½ per cent. *ad valorem*. In speaking to this Bill, Sir George Rainy explained the objects of the Government of India in the following terms :—

" So far as India is concerned, we are chiefly concerned with mixed goods made partly from artificial silk and partly from cotton. The imports of these piecegoods have increased very rapidly, and between the years 1924-25 and

1926-27 they more than doubled. At present both the mixed piecegoods, made partly of artificial silk and partly of cotton and the artificial silk yarn that is imported into this country are dutiable at 15 per cent. Both the cotton mills in Bombay and elsewhere and also some of the handloom weavers, particularly in Southern India, have begun to manufacture these piecegoods, made of a combination of cotton and of artificial silk, and the manufacturer has to pay on the artificial silk yarn that he uses the same rate of duty as is imposed on the imported fabrics which compete with what he makes. All that is proposed in the Bill is to reduce the duty on the artificial silk yarn from 15 to 7½ per cent. so that the manufacturer in this country, whether he be a handloom weaver or whether it be a cotton mill, will have a definite advantage in competing with imported piecegoods."

Piecegoods of Cotton and Artificial Silk.—

Principal countries of consignment.	1926-27		1927-28	
	yds.	Rs. (lakhs).	yds.	Rs. (lakhs).
United Kingdom	16,078,929	1,17	14,262,832	99
Germany	2,487,541	27	4,694,815	53
Belgium	979,974	8	757,177	7
Switzerland	6,697,960	59	11,054,793	89
Italy	13,900,507	81	16,021,907	91
Other countries	1,833,363	17	6,349,267	47
Total	41,978,274	3,09	53,140,791	3,86

The reduction of the British proportion of the values imported to 25 per cent. is disappointing. As I stated last year, there would appear to be two distinct classes of consumers of artificial silk piece-goods in India. The great majority have limited means, and do not trouble much about quality. They are attracted by lustre and bright colours and by the relatively low price of the Continental products. The remainder, who, unfortunately, are much less numerous, take quality into consideration and are willing and able to pay the higher rates charged. The greater proportion of the goods imported are sold on price and price alone, which accounts for the increasing imports from Italy and Switzerland which are, generally speaking, sold at a much lower price than the British products.

There appears to be no reason why British manufacturers should not be able to obtain a much larger share of the business if only they can bring down their prices. The British product is acknowledged to be superior, but this fact is not fully realised by the average Indian buyer. The trade is so new that he neither knows nor cares in which country the material is manufactured, but if it is cheap and made up in attractive designs and colours, he will buy. Some of the small shopkeepers assert that they frequently have Continental artificial silk cloths brought back to them after a few days' wear, with the complaint that the colours are not fast in water. This, of course, militates against the development of

the trade. A systematic and energetic propaganda in favour of British artificial silk goods of quality would do much to allay this prejudice.

The trade is likely to be a rapidly expanding one, and will help to redress the balance caused by reduced imports of the coarser cotton goods. It is to be hoped that British manufacturers and shippers will realise the significance of this, and that they will leave no stone unturned in their efforts to secure a much larger share of the trade.

Exhaustive reports on the market have been made by H.M. Trade Commissioners at Calcutta and Bombay, which are available to bona fide British firms on application to the Department of Overseas Trade.

Flax Manufactures.—The main types imported were as follows :—

Description.	1926-27 Rs. (lakhs).	1927-28 Rs. (lakhs).
Twist and yarn	—	—
Canvas	17	21
Piecegoods	4	4
Sewing thread	2	2
Other sorts, including bags and sacks	8	10
Total imports	31	37

Details of the origin of the imports in 1927-28 are not yet available. In 1926-27 the United Kingdom supplied more than 95 per cent. of the whole trade, the balance comprising Rs.29,000 of flax canvas from Italy, Rs.20,000 of miscellaneous flax manufactures from Germany and Rs.17,000 from Japan.

Jute Manufactures.—There was a further noteworthy reduction in the imports under this heading during the period under review. The figures are as follows :—

Countries of consignment.	1926-27 Rs. (lakhs).	1927-28 Rs. (lakhs).
United Kingdom	10	5
Ceylon	14	17
Other countries	16	2
Total imports	40	24

The United Kingdom in 1926-27 supplied practically the whole of the jute canvas imported. Of gunny bags, apart from Rs.2 lakhs worth from the United Kingdom, the balance consisted almost entirely of second-hand bags re-exported from Australia and transhipped at Colombo, thereby appearing in the returns as an import from Ceylon. The United Kingdom supplied 20 per cent. of the gunny cloth, the remainder being drawn from Japan, Germany, Italy, Belgium and Holland.

Silk Manufactures.—The total imports of raw silk and silk manufactures aggregate over 5 crores in value. The imports of the various types were as follows :—

Description.	1926-27 Rs. (lakhs).	1927-28 Rs. (lakhs).
Raw silk	1,14	1,45
Silk yarns, noils and warps	63	60
Goods of silk mixed with other materials	31	35
Silk piecegoods	2,43	2,58
Sewing thread	2	2
Other kinds	6	6
Total imports	4,59	5,06

China supplies almost the whole of the raw silk imported. Of the yarns, noils and warps, Italy contributed 33 per cent., China 27 per cent. and Switzerland 17 per cent. The United Kingdom supplied a negligible quantity. Silk mixtures were obtained from Japan (38 per cent.), Germany (19 per cent.), France (16 per cent.) and the United Kingdom (9 per cent.). Silk piece-goods are almost entirely drawn from China and Japan.

The United Kingdom supplied nearly 50 per cent. of the small value of sewing silk imported, her principal competitor being Japan, with Italy a poor second. Bombay is the principal port of entry for all silks, but considerable quantities of silk piece-goods enter Burma through Rangoon.

Woollen Manufactures.—The various types imported were as follows :—

Description.	1926-27 Rs. (lakhs).	1927-28 Rs. (lakhs).
Yarns and knitting wool	28	34
Blankets	11	9
Braids	—	1
Carpets and rugs	39	57
Hosiery	19	20
Piecegoods	2,77	3,28
Shawls	37	39
Other sorts...	3	3
Total imports	4,14	4,91

As usual, the principal ports of entry for woollen manufactures were Bombay for distribution throughout the United Provinces, Rajputana and north-western India generally; and Karachi, which is the *entrepôt* for Afghanistan, Baluchistan, the Punjab and the north-west Frontier Province. The Calcutta market is steadily increasing in importance, while Rangoon maintains its position as the distributing centre for the Shan States and Yunnan.

Woollen Piece-goods.—After a slight setback in 1926-27 the total trade increased materially both in yardage and value. The subjoined table gives the origin of the imports :—

Principal countries of consignment.	1926-27		1927-28	
	yds.	Rs. (lakhs).	yds.	Rs. (lakhs).
United Kingdom	5,982,568	1,42	7,125,281	1,62
Germany	1,393,087	30	1,564,376	36
Netherlands	172,748	6	268,158	9
Belgium	726,863	14	431,340	8
France	2,237,092	37	4,417,311	61
Italy	3,575,199	35	3,371,715	37
Japan	1,230,361	10	1,414,022	11
Other countries	107,103	3	184,652	4
Total imports ...	15,425,021	2,77	18,776,855	3,28

The fluctuation in the prices of woollen piece-goods are shown in the declared values per yard during the months of March, 1926, 1927 and 1928, which were Rs.2-4-4, Rs.2-6-11 and Rs.1-14-10 respectively. As I stated last year, the post-war rise in the price of woollen goods has resulted in the substitution of the cheaper French, Italian and German cloths for the higher grade British qualities. Continental competition has been very keen during the year and the principal markets are being actively canvassed by an increasing number of foreign commercial travellers, who appear to concentrate their attentions on Indian importers, closely study their psychology and prejudices, and leave no stone unturned in their efforts to supply cloths which, although frequently lower in quality, are suitable for the purpose for which they are intended and come in at a lower price.

Woollen Shawls.—It is interesting to note that although the shawl trade has almost attained the pre-war aggregate in value, the number is still nearly 600,000 in defect. This tends to show that the market is capable of absorbing a definite value each year, and when prices rise the quantities imported are reduced. The latest figures are as follows :—

Countries of consignment.	1926-27		1917-28	
	Number.	Rs. (lakhs).	Number.	Rs. (lakhs).
United Kingdom	172,805	7	175,497	6
Germany	360,754	18	480,060	23
Other countries	445,932	12	433,382	10
Total imports ...	979,491	37	1,088,939	39

The British shipments have remained practically stationary during the past three years, while Germany is rapidly regaining her pre-war predominance. The competition from other countries is mainly that of Italy.

Carpets and Rugs.—There has been a continuous expansion in the total imports during the past three years :—

Principal countries of consignment.	1926-27 Rs. (lakhs).	1927-28 Rs. (lakhs).
United Kingdom	11	9
Italy	22	41
Persia	3	2
Other countries	3	5
Total imports	39	57

The Italian trade in cheap printed tapestry rugs is increasing rapidly.

Machinery and Millwork.—One of the most encouraging features of the past year is the increase of 2⅓ crores in the imports of machinery. This followed a long period of depression extending over five years. The increase was well-spread over almost all types of machinery and clearly shows that the tide in Indian industries has at last turned. In my last report I stated that the low water mark appeared to have been reached and that I looked forward to an improvement in the future. Once more it is possible to sound an optimistic note and to state with some degree of confidence that the improvement is likely to be more than maintained. While it is true that the great Indian cotton industry recovers very slowly, there is a marked improvement in the jute and other textile industries, while the steel and engineering industries appear to be at the beginning of a period of considerable expansion. The numerous projects, both under construction and projected, for the supply of electrical and steam power are a fairly sure criterion of industrial development in the near future. Moreover, the important Government programmes for railway, irrigation and public works schemes, most of which are outlined in Chapter IV, are bound to result in heavy imports of plant of all kinds. The following table shows the origin of the imports during the past two years :—

Countries of consignment.	1926-27 Rs. (lakhs).	1927-28 Rs. (lakhs).
United Kingdom	10,66	12,53
Germany	94	1,05
Belgium	25	29
Japan	3	2
United States	1,39	1,57
Other countries	36	47
Total imports	13,63	15,93

The next table shows the relative importance of the three principal suppliers before the war and during the past two years :—

Principal countries of consignment.	1913-14	1926-27	1927-28
	Per cent.	Per cent.	Per cent.
United Kingdom	90	78·2	78·5
United States	3	10·2	10·1
Germany	6	7·0	6·7
Other countries	1	4·6	4·7
	100·0	100·0	100·0

It is most satisfactory to record that British machinery exporters secured the greater share of the increased trade and improved their relative position to 78·5 per cent. of the total. This is mainly due to a phenomenal increase in the imports of British boilers amounting to no less than 45 lakhs, and to greatly increased imports of British mining machinery, oil crushing and refining machinery, jute and cotton manufacturing plant and tea machinery. German competition in industrial plant of all kinds is becoming more insistent. The principal German makers of electrical plant now maintain their own branches in India while German exporters of prime movers, mining machinery, rice milling and oil crushing plant are strongly represented by technical agents. As I have frequently stated, there will always be a demand from Indian sources for cheap plant where low first cost rather than quality and efficiency is the desideratum. This will probably be more and more supplied by our competitors. The British machinery manufacturer, however, enjoys a very high reputation in the market, his selling and technical organisation in the country is second to none, and I look forward to his being able to maintain his position and to meet the increasing competition provided that he is prepared to follow the changes in conditions by adaptability in design, by increased technical service on the spot and by closely studying the precise requirements of the market.

The following brief analysis of the principal types of machinery imported will be of interest :—

Textile Machinery.

	1925-26	1926-27	1927-28
	Rs. (lakhs).	Rs. (lakhs).	Rs. (lakhs).
Cotton spinning machinery ...	1,21	80	1,01
,, weaving machinery	64	60	72
,, bleaching and dyeing machinery	4	3	5
,, printing machinery	(*a*)	(*a*)	(*a*)
Other sorts	46	27	19
Total	2,35	1,70	1,97

(*a*) Less than 1 lakh.

Lancashire textile machinists secured 94 per cent. of the trade, the balance consisting of certain American, German, Polish and

Dutch specialities such as patent winders, cotton waste spinning machinery, beaming machines and low grade dobbies.

Woollen Manufacturing Machinery.—There has been a lull in this trade, as the few existing plants are well-equipped and no new machinery has been laid down. The figures of total imports were :—

1925-26	1926-27	1927-28
Rs. 2 lakhs.	Rs. 4 lakhs.	Rs. 1½ lakhs.

Jute Manufacturing Machinery.—The imports during the past three years have been as follows :—

	1925-26	1926-27	1927-28
Rs. lakhs ...	82	65	94

The trade is almost entirely in British hands.

Electrical Machinery.—The following were the main types of electrical plant imported during the year :—

	1926-27 Rs. (lakhs).	1927-28 Rs. (lakhs).
Control and switchgear	32	36
Generators, alternators and dynamos ...	49	38
Motors	29	35
Transformers	23	12
Turbo-generating sets	8	2
Other sorts...	88	77
	2,29	2,00

Although there has been a temporary reduction in the total trade during the past year, the demand during the next few years is likely to expand owing to the number of power schemes both from water and coal, which are under construction or projected. The important projects for railway electrification in Bombay, Bengal and Madras are likely to provide an outlet for large quantities of plant.

The provenance of the imports was as follows :—

Countries of consignment.	1925-26 Rs. (lakhs).	1926-27 Rs. (lakhs).	1927-28 Rs. (lakhs).
United Kingdom...	1,84	1,86	1,66
Germany	9	11	9
U.S.A.	20	23	15
Other countries	9	9	10
Total	2,22	2,29	2,00

It is satisfactory to note that the British position is fairly well maintained in spite of the keenest competition from American and German makers. Prices were closely cut and most of the orders for large power plants were taken at prices which show little if any profit.

Boilers.—The imports were as follows :—

Countries of consignment.	1925-26 Rs. (lakhs).	1926-27 Rs. (lakhs).	1927-28 Rs. (lakhs).
United Kingdom...	87	59	1,04
Germany	6	1	1
Other countries	5	2	4
Total	98	62	1,09

The revival in Indian industries is clearly shown in the enhanced imports of boilers of all kinds. Foreign competition has hitherto been negligible largely owing to the powerful local organisation of the British manufacturers.

Prime Movers (other than Electrical).—The total imports were classified as follows :—

	1926-27 Rupees.	1927-28 Rupees.
Locomotives—excluding those for Railways—		
Oil engines	1,96,122	3,22,741
Oil engines (parts of)	54,522	85,439
Steam engines	27,87,974	16,17,940
Steam engines (parts of)	7,23,278	8,01,362
Others...	1,27,273	91,243
Other than Locomotives—		
Gas engines	2,09,550	2,27,012
Gas engines (parts of)	1,01,309	76,789
Oil engines	96,29,418	94,61,416
Oil engines, (parts of)	15,78,801	18,95,014
Steam engines	27,51,017	33,18,949
Steam engines (parts of)	15,60,929	28,13,599
Others...	1,04,822	91,998
Total	1,98,25,015	2,08,03,502

Details of the provenance of the imports in 1927-28 are not yet available, but it is safe to say that British makers control 90 per cent. of the trade. The post-war years have shown a steady expansion in the demand for oil engines, which are largely displacing steam and gas engines for many industrial purposes. Germany, Sweden and Italy compete to a slight extent in oil engines, but in steam engines British makers control the market.

Agricultural Machinery.—This trade has remained practically stationary for the past three years, as the following figures show :—

	1925-26 Rupees.	1926-27 Rupees.	1927-28 Rupees.
Agricultural tractors and parts ...	4,26,675	3,35,604	5,47,559
Ploughs and parts	1,72,045	3,00,297	1,78,924
Other sorts	5,92,527	4,88,599	4,68,739
Total imports	11,91,247	11,24,500	11,95,222

In 1926-27 the United States supplied 57 per cent. of the tractors and parts, the United Kingdom contributing 25 per cent., Canada 9 per cent. and Germany 3 per cent. Of the ploughs and parts the United Kingdom supplied 45 per cent. and the United States 19 per cent. Canada in that year sent Rs.5,508 worth. In miscellaneous types of agricultural machinery, however, the United Kingdom shipped 91 per cent. and the United States 5 per cent.

The Indian market for imported agricultural machinery and implements of modern types is most disappointing, and it is difficult to see any material improvement in the near future. As I stated last year, the only solution of the problem would appear to be the extension of the activities of Government agricultural departments in the stocking and distribution of improved implements. To effect this greatly increased grants of funds will have to be made to them and a considerable increase of staff will be entailed. It is hoped that the recommendations of the Indian Agricultural Commission, whose report is now available, will expedite a solution of the problem, which is one of the most pressing agricultural questions of the day.

Mining Machinery.—

Countries of consignment.	1925-26 Rs. (lakhs).	1926-27 Rs. (lakhs).	1927-28 Rs. (lakhs).
United Kingdom...	51	37	67
Germany	7	15	23
Belgium	21	15	14
U.S.A.	44	30	45
Other countries	1	—	1
Total	1,24	97	1,50

The recovery in the British position is satisfactory. The United States still competes in coal-cutting machinery, but British suppliers of colliery plant supply 65 per cent. of the trade. American and German competition is most severely felt in the plant required for the oil fields and for the miscellaneous mining industry in Burma.

Metal Working Machinery (including Machine Tools).—The trade recovered slightly during the year:—

	1925-26	1926-27	1927-28
Rupees ...	44,00,338	37,48,096	40,79,454

This comprehensive classification consists mainly of machine tools. Figures for 1927-28 are not yet available, but in 1926-27 the United Kingdom supplied 73 per cent., the United States 17 per cent. and Germany 6 per cent. The British machine tool groups are strongly organised and should be able to maintain their hold on the trade.

Oil Crushing and Refining Machinery.—The following are the latest figures :—

Country of origin.	1925-26 Rs. (lakhs).	1926-27 Rs. (lakhs).	1927-28 Rs. (lakhs).
United Kingdom	11	22	56
Germany	5	6	8
United States	5	3	4
Other countries	(*a*)	2	2
Total	21	33	70

(*a*) Less than 1 lakh.

Bengal is the principal market, but there is also a steady trade with Burma.

Paper Mill Machinery.—There has been a considerable improvement during the past year owing to the emergence of the industry from a period of severe depression :—

	1925-26	1926-27	1927-28
Rupees ...	3,36,029	6,69,485	9,43,165

In 1926-27 the United Kingdom supplied 94 per cent., Germany, the United States and Austria sending small quantities. There is likely to be a considerable increase in the coming year as British contractors have secured the plant for the important new paper mill of the Punjab Pulp & Paper Co., Ltd., at Jagadri.

Refrigerating Machinery.—The total imports expand steadily :—

	1925-26	1926-27	1927-28
Rupees ...	8,31,507	11,70,738	11,99,131

In 1926-27 the United Kingdom supplied 44 per cent., the United States 43 per cent. and Germany 6 per cent.

Rice and Flour Mill Machinery.—There was a slight setback in the total imports last year :—

Countries of consignment.	1925-26 Rs. (lakhs).	1926-27 Rs. (lakhs).	1927-28 Rs. (lakhs).
United Kingdom	8	11	6
Germany	10	12	13
United States	5	4	3
Other countries	1	1	1
Total	24	28	23

Germany is steadily strengthening her hold on the market for small rice milling plants in Burma and Bengal. There have not been any large rice or flour mills constructed during the period.

Sawmill and Woodworking Machinery.—

Countries of consignment.	1925-26 Rs. (lakhs).	1926-27 Rs. (lakhs).	1927-28 Rs. (lakhs).
United Kingdom	6	7	7
Other countries	2	2	1
Total	8	9	8

The principal competition is from the United States in saw-milling plants and from Germany in woodworking machinery. Thanks to efficient representation by experts attached to influential agents, the leading British firms manage to retain their position.

Sewing and Knitting Machines (including Parts).—The steady expansion in this valuable trade goes on from year to year in the face of all conditions and is likely to continue *pari passu* with the increase in the purchasing power of the people.

The total imports including parts and accessories were :—

	1925-26	1926-27	1927-28
Rupees ...	79,92,019	87,65,147	91,54,238

In 1926-27 the United Kingdom supplied 81 per cent. and Germany 15 per cent. The Singer Sewing Machine Company, who largely dominate the market, thanks to their efficient and widespread organisation, obtain their supplies from their Clyde bank factory at Kilbowie. German competition is steadily increasing.

Sugar Machinery.—

Countries of Consignment.	1925-26 Rs. (lakhs).	1926-27 Rs. (lakhs).	1927-28 Rs. (lakhs).
United Kingdom	12	5	7
Other countries	4	1	2
Total	16	6	9

The imports of sugar manufacturing plant are likely to be greater during the coming year in view of two or three substantial plants which are under erection. Germany is the principal competitor, but British makers retain their hold on the business.

Tea Machinery.—There has been a satisfactory expansion during the past year and the demand from the gardens has been well maintained. The plant hitherto used has been exclusively British. The figures are as follows :—

	1925-26	1926-27	1927-28
Rupees ...	38,58,503	26,28,099	36,06,477

Typewriters.—The trade continues to expand and the outlook is promising :—

Year.	Number of machines.	Value (Rupees).
1925-26	10,947	16,06,962
1926-27	13,790	22,06,090
1927-28	16,952	25,05,241

Until the last two years this trade was a virtual monopoly of the United States owing to the efficient organisation of the American companies. British manufacturers are now paying more attention to the potentialities of India, but much more attention will have to be given to local organisation before serious headway can be made. The British machines are good, their prices are competitive, but very much more needs to be done in extending service organisations. The manufacturers should realise that, in order to compete successfully with the American organisation, they must give personal attention to the building up of an equally efficient distributing sales and service organisation in India.

Other Sorts of Machinery.—This comprehensive heading includes all types of machinery and plant not specially classified in the customs returns. The total values were as follows :—

	1925-26	1926-27	1927-28
Rupees ...	2,25,40,399	2,36,35,366	2,74,37,908

Details of the provenance of the imports last year are not yet available, but in 1926-27 the United Kingdom supplied 73 per cent., the United States 13 per cent. and Germany nearly 7 per cent. The rapid expansion of the imports of miscellaneous industrial plant from Germany has been extraordinary.

Iron and Steel.—Perhaps the most hopeful feature of the year has been the heavy advance in the total quantity of iron and steel imported into India from 845,000 tons in 1926-27 to 1,197,261 tons in the year under review. While it is true that the previous year included the coal stoppage in the United Kingdom and consequently local stocks of imported material had run very low, the recovery in the import trade, coinciding as it did with a record production from the Tata Iron & Steel Works of 363,195 tons of finished steel, shows that the Indian consumption of steel is capable of very great expansion. In the opinion of those competent to judge this extension in the demand for steel of all kinds will absorb not only the rapidly increasing production of the Tata Steel Works but will also result in a steadily increasing demand for imported steel, in which British steel masters should be able to improve their position.

The Committee of the Calcutta Import Trade Association, in their report for 1927, state that :—

" The new customs duties, which give a preference to British manufactured material, came into force on April 1st. It resulted in users being able to purchase British Standard Specification material almost Rs.20/- per ton lower and consequently imports have increased.

British manufacturers' rates, which rose at the end of 1926 after the settlement of the coal strike, have remained fairly steady all through the year at prices slightly higher than those ruling in 1926. Plate makers in particular were able to maintain prices due to the recovery in the ship-building industry, which kept them with full order-books.

Prices for Continental manufactured material steadily declined throughout the year, the difference between prices at the beginning and end of the year, in some instances, being as much as £1 per ton. It should, however, be remembered that the Continent were able to increase their quotations considerably during the latter half of 1926 because of the stoppage in England.

The galvanised corrugated sheet market has experienced an almost unprecedented bad time. The trouble commenced as early as July, when British maker's prices dropped almost 7 per cent. immediately after the majority of importers and dealers had made their contracts for their total requirements for the year. Although this was a serious matter in itself, difficulties could have been overcome had not the market considerably over-bought. Records show imports into Calcutta in 1927 to be 195,317 tons, which is undoubtedly a much higher tonnage than the market can consume. Imports in 1926 amounted to 179,343 tons, which figure was 45 per cent. higher than 1925 and 100 per cent. higher than 1924. The result was that dealers could not take up their commitments and banks have carried a very large tonnage. The drop in makers' rates between the beginning and end of the year amounted to 16 per cent."

Production and Development of the Tata Iron and Steel Works. —I am indebted to the Tata Iron & Steel Co., Ltd., for the following authoritative statement of the production at Jamshedpur, together with notes on the development of the plant during the year ended 31st March, 1928 :—

Production of Pig Iron—

The number of furnaces in existence on 31-3-28	5
	Tons.
Pig iron production	644,296
Pig iron used in works	575,204
Ferro manganese produced for works use	7,664

Furnaces and Converters—

	No. in existence on 31-3-28
Bessemer converters, acid	3
Open hearth furnaces	9
	No. built during the year 1927-28
Bessemer converter, acid	1
	No. in course of erection.
Open hearth furnace	1

Production of Ingots.

	Tons.
Open hearth, basic	251,618
Duplex ,,	347,947

Rolling Mills—

	No. in existence on 31-3-28.
Cogging mills	2
Rail mills	2
Plate mills	1
Section, bar and merchant mills	4
Sheet mills	9

	Tons.
Production of Semi-finished Steel—	
Blooming mill production	511,026
Sheet bar and billet mill production—	
(1) Billets ... ... } Rolled from	70,371
(2) Sheet bars and sleeper bars } blooms of	42,108
(3) Tinplate bars and flat bars of sheet bar and billet mills ... } Blooming Mill shown above	64,688
Billets received from other works for re-rolling	22,318
Production of Finished Steel—	
Rails 50 lbs. and over	173,773
,, 30 lbs. and under	2,949
Fishplates	7,208
Sleepers	4,399
Angles, channels and tees	33,461
Beams	19,108
Rounds, squares, flats, octagons, tiebars	68,899
Steel plates $\frac{3}{16}$in. thick and over	25,921
Sheets $\frac{1}{8}$in. and under, other than sheets for galvanising ...	18,970
Galvanised sheets	8,507
	363,195

The Directors of the Company have, during the year, sanctioned a scheme for further extensions and completion of the plant. The programme, which is estimated to cost about Rs.3 crores and will take several years to complete, mainly consists of a third Duplex tilting furnace, a fourth battery of coke ovens, a benzol recovery plant, improvements to the open hearth furnaces, gas producers, enlargement of blast furnaces, four new turbo blowers, new boiler plant, one 18,000 kw. generator, rolling stock, cranes, soaking pits, a hoop and strip mill, a roughing mill and various improvements all over the plant.

This programme, when completed, is expected to increase the production to approximately 900,000 tons of pig and over 600,000 tons of finished steel.

Coke Ovens.—At the Koppers battery, a Phillipson dryer, and at the Wilputte a Walton dryer have been erected for the drying of the sulphate of ammonia.

Blast Furnaces.—" C " furnace has been relined with an enlarged hearth, etc., and thus the capacity has been increased from 550 tons to 750 tons a day with the present blowing equipment. New burners have been fitted to the stoves (and also to the stoves of " D " furnace), and a gas washer has been added to wash the gas for the boilers.

Open Hearth.—No. 6 Furnace has been reconstructed similar to No. 7. New gas producers have been installed and better gas generating practice together with more efficient burning is making improvements in fuel economy and increased production.

Duplex Plant.—The foundation of the third Duplex plant and gas producers for No. 3 Furnace is nearing completion and it is hoped to have this furnace ready by the end of the year. No. 3 converter has been erected, and has been in operation since February, 1928.

Labour Troubles at Jamshedpur.—The last few months have witnessed the outbreak of serious labour troubles at the steel

works culminating in the closing of the works on June 1st, 1928. The publication by the Steel Company in April of a bonus scheme on output, amounting to Rs.10 lakhs a year, failed to satisfy a section of the workers, who contrived by sectional strikes, lightning "hartels," &c., to render impossible the efficient operation of the works. The Steel Company published at the end of June, 1928, the terms on which they were prepared to open the works. These terms include the payment of the bonus and a complete investigation into existing rates of pay, but insist upon the reduction of the staff by 25 per cent. The stoppage will probably be a fairly lengthy one,* but it is generally realised that the economies resulting from the reduction of surplus labour will leave the Steel Company in a stronger position to proceed with their programme of development and increased output. Meanwhile, it is probable that British suppliers of railway rails and structural sections will secure a temporary advantage in providing the immediate requirements of the market.

Origin of the Imports of Iron and Steel.—The following statement shows the chief sources of supply of iron and steel with the percentage share of each country in the import trade :—

* The strike ended on September 13th.

	United Kingdom.		Germany.		Belgium.		France.		United States.		Other countries.		Total.
	Tons. (1,000)	Share. per cent.	Tons. (1,000)	Share. per cent.	Tons. (1,000)	Share. per cent.	Tons. (1,000)	Share. per cent.	Tons. (1,000)	Share. per cent.	Tons. (1,000)	Share. per cent.	Tons. (1,000)
1913-14 ...	609	59·8	200	19·6	173	17·0	2	·1	22	2·2	12	1·3	1,018
1919-20 ...	269	63·0	1	·2	13	3·1	—	—	135	31·6	9	2·1	427
1920-21 ...	498	70·0	15	2·1	69	9·7	2	·3	113	15·9	15	2·0	712
1921-22 ...	280	45·7	60	9·8	160	26·1	9	1·5	84	13·7	20	3·2	613
1922-23 ...	359	48·1	90	12·1	229	30·7	7	1·0	38	5·1	23	3·0	746
1923-24 ...	429	56·7	61	8·0	217	28·7	5	·5	18	2·4	26	3·7	756
1924-25 ...	439	50·5	88	10·1	273	31·4	16	1·8	17	2·0	36	4·2	869
1925-26 ...	489	55·3	69	7·8	229	25·9	45	5·1	23	2·6	29	3·3	884
1926-27 ...	406	48·1	79	9·3	257	30·4	33	3·9	29	3·4	41	4·9	845
1927-28 ...	685	57·2	79	6·6	316	26·4	48	4·0	16	1·4	53	4·4	1,197

It is most satisfactory to note that the British share has advanced to within 3 per cent. of the figure for 1913-14. The increased import of 280,000 tons of British steel is primarily due to the replenishment of local stocks depleted owing to the British coal stoppage of 1926 and to the boom in the demand for galvanised sheets, which represented last year 43 per cent. of the total United Kingdom shipments of steel. The advantage accruing from the lower rate of import duty on British standard steel is considerable and in many cases ensures the placement of orders for bridge work and structural sections with British works instead of on the Continent.

It will be convenient to show the principal headings under which competition was encountered during the past year :—

Description.	From the U.K.	From U.S.A.	From Belgium.	From Germany.	Total Imports.
	Tons.	Tons.	Tons.	Tons.	Tons.
Steel bars (other than cast steel)	23,015	*	110,600	14,263	181,075
Beams, girders, pillars and bridgework ...	63,274	121	58,809	3,072	144,368
Nuts and bolts ...	3,796	248	3,483	1,353	10,265
Hoops and strips ...	15,178	18	10,397	4,391	33,011
Nails, rivets and washers	6,627	*	4,757	1,518	18,562
Cast pipes and fittings	6,433	*	*	*	15,672
Galvanised sheets and plates...	297,686	4,330	*	*	331,504
Tinned plates	17,420	7,393	*	*	24,949
Plates not galvanised or tinned	44,396	150	30,566	949	79,738
Wrought tubes, pipes and fittings	28,583	1,230	7,086	7,227	46,980
Wire nails	329	*	6,671	2,266	13,433
Wire rope	3,910	48	*	*	4,240

*Not separately distinguished.

Belgian competition is very keen in bars, plates and structural sections where British standard specification is not insisted on. Belgian and German steel dominates the bazaar trade, although Tata steel is strengthening its hold. American competition is not serious except in tinned plates, and even in this item the relative British position is improved. Luxemburg shipped over 22,000 tons of steel bars, while Sweden and Norway supplied considerable quantities of nails, rivets and washers.

The following brief comments under each heading analyse the position in 1927-28, as compared with the figures for the previous year :—

Bars (other than Cast Steel).—As might be expected in view of the fact that last year's figures covered the period of the coal stoppage the total imports rose from 151,000 tons to 181,000 tons, and the value from Rs.148 to

Rs. 183 lakhs. The British share advanced from 8,000 tons (Rs.13 lakhs) to 23,000 tons (Rs.36 lakhs). Belgian shipments rose from 89,000 tons (Rs.84 lakhs) to 110,000 tons (Rs.103 lakhs). Luxemburg also increased her share from 16,000 tons (Rs.15 lakhs) to 22,000 tons (Rs.19 lakhs). On the other hand, German imports fell from 27,000 tons (Rs.26 lakhs) to 14,000 tons (Rs.13 lakhs).

Beams, Channels, Pillars, Girders and Bridgework.—The total trade more than doubled from 72,000 tons to 144,368 tons and from Rs.90 to Rs.184 lakhs in value. The British share rose sharply from 24,000 tons (Rs.41 lakhs) to 63,000 tons (Rs.99 lakhs). Arrivals from Belgium advanced from 32,000 tons (Rs.33 lakhs) to 59,000 tons (Rs.62 lakhs), and those from France from 11,000 tons (Rs.9 lakhs) to 16,000 tons (Rs.14 lakhs).

Bolts and Nuts.—The total trade diminished from 11,330 tons to 20,265 tons and from Rs.32 to Rs.31 lakhs. The British share, on the other hand, advanced from 2,478 tons (Rs.10 lakhs) to 3,796 tons (Rs.15 lakhs). The share of Belgium was reduced from 4,621 tons (Rs.9 lakhs) to 3,483 tons (Rs.7 lakhs), while that of Germany fell from 2,766 tons (Rs.8 lakhs) to 1,353 tons (Rs.4 lakhs).

Nails, Rivets and Washers (other than Wire Nails).—The total trade advanced slightly from 17,000 tons to 18,000 tons, but the value remained constant at Rs.52 lakhs. Arrivals from the United Kingdom advanced from 6,552 tons to 6,627 tons but fell in value from Rs.20 to Rs.17 lakhs. Belgian shipments rose from 4,088 tons (Rs.9 lakhs) to 4,757 tons (Rs.10 lakhs). Sweden supplied Rs.8 lakhs, Norway Rs.9 lakhs and Germany Rs.3½ lakhs.

Cast Pipes and Fittings.—The total trade expanded from 9,080 tons (Rs.23 lakhs) to 15,672 tons (Rs.33 lakhs). While the British share rose from Rs.17 to Rs.19 lakhs, that of "other countries" advanced from Rs.6 to Rs.14 lakhs.

Hoops and Strips.—A fall is to be recorded in the total trade from 35,000 tons (Rs.53 lakhs) to 33,000 tons (Rs.48 lakhs). The British share rose in quantity from 13,684 tons to 15,178 tons and from Rs.24 to Rs.24½ lakhs in value. The share of Belgium was reduced from 12,824 tons (Rs.16 lakhs) to 10,397 tons (Rs.13 lakhs).

Galvanised Sheets and Plates.—There has been a very heavy advance in the total trade from 274,819 tons, valued at Rs.717 lakhs to 331,504 tons, valued at Rs.806 lakhs. The British share rose from 249,024 tons (Rs.645 lakhs) to 297,686 tons (Rs.724 lakhs). The American share fell from 12,088 tons (Rs.40 lakhs) to 4,330 tons (Rs.16 lakhs). "Other countries," notably Belgium, increased their shipments from 13,707 tons (Rs.32 lakhs) to 29,488 tons (Rs.65 lakhs).

As a result of the extraordinary large shipments, the market for galvanised sheets in Calcutta, which is the principal port of entry, was in a very depressed state during September-December. There were some failures, drafts had to be extended, and heavy stocks were accumulated. The off-take, however, during the season has been particularly good and the position at the close of the financial year had considerably improved.

Tinned Plates.—The total imports rose from 22,244 tons, valued at Rs.77 lakhs to 24,949 tons, valued at Rs.82 lakhs. The share of the United Kingdom advanced from 11,592 tons (Rs.40 lakhs) to 17,420 tons (Rs.57 lakhs), while that of the United States fell from 10,623 tons (Rs.37 lakhs) to 7,393 tons (Rs.25 lakhs).

Sheets and Plates (not galvanised or tinned).—The total imports were increased from 61,967 tons, valued at Rs.84½ lakhs, to 79,738 tons, valued at Rs.108 lakhs. The share of the United Kingdom rose from 16,510 tons (Rs.28 lakhs) to 44,396 tons (Rs.66 lakhs). Imports from Belgium fell from 31,234 tons (Rs.38 lakhs) to 30,566 tons (Rs.36 lakhs).

Wrought Tubes, Pipes and Fittings.—The total imports rose from 29,942 tons (Rs.91 lakhs) to 46,980 tons (Rs. 131 lakhs). Arrivals from the United Kingdom advanced from 12,202 tons (Rs.45 lakhs) to 28,583 tons (Rs.85 lakhs), and those from Belgium from 4,494 tons (Rs.11 lakhs) to 7,086 tons (Rs.16 lakhs). On the other hand, imports from Germany fell from 9,735 tons (Rs.25 lakhs) to 7,227 tons (Rs.17 lakhs). Imports from the United States fell very slightly to Rs.4 lakhs.

Wire Nails.—The total figures receded slightly from 14,498 tons to 13,433 tons and from Rs.25 to Rs.24 lakhs. The British share only amounted to 329 tons, valued at Rs.80,000. Arrivals from Germany were reduced from 3,276 tons (Rs.6 lakhs) to 2,260 tons (Rs.4 lakhs), and those from Belgium from 9,810 tons (Rs.17 lakhs) to 6,671 tons (Rs.12 lakhs).

Wire Rope.—There has been a satisfactory advance in the total trade from 3,027 tons (Rs.19½ lakhs) to 4,240 tons (Rs.25½ lakhs). Imports from the United Kingdom advanced from 2,716 tons (Rs.18 lakhs) to 3,910 tons (Rs.24 lakhs). Imports from the United States only amounted to Rs.42,000, and from " other countries " to Rs.1,48,000.

Aluminium.—The steady extension in the Indian hollow-ware manufacturing industry is clearly reflected in enhanced imports of aluminium circles, which form the raw material of the industry.

	1926-27		1927-28	
	Cwt.	Rs. (lakhs).	Cwt.	Rs. (lakhs).
Unwrought—				
Ingots, blocks, bars ...	5,470	4	3,786	3
Wrought—				
Circles	79,869	76	117,168	1,01
Sheets	4,634	4	5,965	5
Other manufactures ...	7,249	11	7,951	9
Total imports ...	97,222	95	134,870	1,18

Particulars relating to the origin of imports are not yet available for 1927-28, but in the previous year 46 per cent. of the unwrought ingots, &c., were obtained from the United Kingdom, 27 per cent. from Italy and 20 per cent. from Germany. Of the circles 24 per cent. were drawn from the United Kingdom, 42 per cent. from the United States, 17 per cent. from Germany and lesser amounts from Italy, Switzerland and Belgium. Sheets were obtained from the United Kingdom (31 per cent.), the United States (54 per cent.) and Germany (8 per cent.). The imports of " other manufactures," comprising mainly wire and utensils, were received from Belgium (36 per cent.), Germany (36 per cent.) and the United Kingdom (13 per cent.). Competition is very keen between the British Aluminium Company and the Northern Aluminium Company of America, both concerns having their own sales organisations in India. The Continental shippers work largely through local importers in the Bombay market.

Brass, Bronze and Similar Alloys.—*Mixed or Yellow Metal for Sheathing.*—There has been a slight reduction in this valuable trade :—

Countries of consignment.	1926-27 Cwt.	1926-27 Rs. (lakhs).	1927-28 Cwt.	1927-28 Rs. (lakhs).
United Kingdom	120,853	60	168,331	75
Germany	241,202	1,14	194,756	88
Japan	52,029	26	54,395	27
Other countries	12,772	4	10,282	4
Total	426,856	2,04	427,764	1,94

It is encouraging to note that the steady decline in the British share of the trade has been arrested. The British sheets lead in quality and are preferred if their price is reasonably near that of their competitors.

Other Manufactures (Wrought).—The imports were as follows :—

	1926-27 Rupees.	1927-28 Rupees.
Rods	3,69,237	5,07,495
Sheets	4,61,957	2,97,823
Tubes	1,20,129	1,03,792
Wire	4,24,977	4,44,131
Other sorts...	31,64,970	21,22,688

Copper (Wrought).—The imports of wrought copper during the past two years have been made up as follows :—

	1926-27 Rs. (lakhs).	1927-28 Rs. (lakhs).
Braziers	—	1
Sheets	1,09	92
Rods	4	6
Tubes	4	3
Wire (excluding telegraph and telephone wire)	4	2
Other manufactures	6	6

The subjoined table gives the provenance of the imports :—

Countries of consignment.	1926-27 Cwt.	1926-27 Rs. (lakhs).	1927-28 Cwt.	1927-28 Rs. (lakhs).
United Kingdom	33,771	19	70,000	36
Germany	164,740	77	70,888	36
Belgium	42,855	22	35,946	17
United States	775	1	1,089	1
Other countries	15,585	8	38,939	20
Total	257,726	1,27	216,862	1,10

German and Belgian competition is keenest in sheets and is based entirely on price.

German Silver (including Nickel Silver).—A slight advance in the total trade is to be recorded :—

	1925-26	1926-27	1927-28
Rupees ...	21,71,744	14,35,895	15,09,025

In 1926-27, the last year for which details are available, Germany shipped Rs.8 lakhs worth, Austria Rs.2 lakhs, Italy Rs.2 lakhs and the United Kingdom Rs.2 lakhs.

Railway Plant and Rolling Stock.—India's purchases of railway plant show a very considerable increase, both on account of State-operated lines and also on account of the company-worked railways. This is mainly due to very heavy purchases of steel sleepers from the Continent and increased imports of coaching stock and locomotives from the United Kingdom.

State-operated Lines.—The imports of Government Stores from the India Store Department, London, on account of the State railways were as follows :—

Countries of Consignment.	1925-26 Rs. (lakhs).	1926-27 Rs. (lakhs).	1927-28 Rs. (lakhs).
United Kingdom	2,26	1,71	2,53
Germany	17	15	18
Belgium	47	67	1,64
United States	1	3	1
Australia	11	6	7
Other countries	12	21	15
Total	3,14	2,83	4,58

The further reduction in the British share to 55 per cent. is disturbing, but inasmuch as it is largely due to certain grouped contracts for Belgian sleepers, which are not likely to recur for some years, it may reasonably be anticipated that the British proportion will be higher next year. For some years now the Director-General of the India Store Department has been carrying out his instructions to purchase in the cheapest market, irrespective of origin. The result, as is clearly shown in his annual report, has been a steady reduction in the British share of the trade. The introduction of the rupee tender system in India, which is dealt with at length in Chapter II, will have a revolutionary effect on the business as it will definitely transfer the purchases for Indian State railways from London to India. I therefore recommend all British suppliers of railway plant to study the statement of the new position which will be found in Chapter II.

Company-worked Lines.—There has been a noteworthy expansion in the trade on account of increased arrivals of locomotives and railway carriages and also of steel sleepers under the contracts already referred to. The figures are as follows :—

Countries of Consignment.	1925-26 Rs. (lakhs).	1926-27 Rs. (lakhs).	1927-28 Rs. (lakhs).
United Kingdom	4,22	2,00	3,71
Germany	18	28	18
Belgium	28	38	59
United States	14	21	10
Australia	8	24	12
Other countries	6	14	6
Total	4,96	3,25	4,76

The improvement in the British share from 61 to 78 per cent. is decidedly encouraging, but there is still a great deal of leeway to be made up before the percentages of the years prior to 1923 are attained.

Motor Vehicles.—*Motor Cars.*—The total number of cars imported was as follows:—

	United Kingdom	United States.	Canada.	France.	Italy.	Other countries.	Total.
Year.							
1913-14 ... (pre-war)	1,669	868	—	111	7	225	2,880
1923-24 ...	1,005	2,865	3,290	153	370	301	7,984
1924-25 ...	1,682	3,106	3,956	215	235	186	9,380
1925-26 ...	2,399	4,143	4,775	367	860	213	12,757
1926-27 ...	2,546	4,030	4,476	607	1,416	122	13,197
1927-28 ...	3,600	6,031	3,400	538	1,367	186	15,122

Thanks to increased efforts on the part of British manufacturers coupled with a reduction in the prices of many models, the rate of increase in the imports of British cars has been accelerated during the past year, and the United Kingdom now supplies 23 per cent. of the number and 29 per cent. of the value of the cars imported. While this shows a considerable improvement on the situation existing some years ago, the position can scarcely be considered entirely satisfactory in view of the very great potentialities of the market. The leading models of most of the cheaper makes of British cars can now be marketed in India at prices which are within the purchasing power of a large section of consumers who pay some regard to finish, durability and low running cost. The problems now to be overcome are largely those of representation and marketing. The majority of the most influential local firms of agents are already committed to the sale of competing foreign makes and, if a motor manufacturer is not prepared to open his own selling organisation, it is almost impossible to secure the right type of agent. Three leading British firms have their own sales organisations in India, a few others are adequately represented by local agents, but in a great many cases the local organisation is totally inadequate to the needs of the market. More direct

factory representatives are needed to supervise the appointment and activities of local agents and to give that personal attention to the market which is given in the case of our leading foreign competitors. The whole question is one to which I have devoted considerable attention during the last few years, and the Department of Overseas Trade will be glad to give advice on the subject.

The Committee of the Central Legislature, which was appointed by the Government of India to examine the whole question of road development, has completed the collection of evidence, and it is expected will submit its report in July. By the time this report is published its findings will probably be known.

The following statement shows the number of motor vehicles registered in British India up to 31st March, 1928 :—

Provinces.	Motor cars including taxi-cabs.	Motor cycles, including scooters and auto-wheels.	Heavy motor vehicles (lorries, buses, etc.).	Total.
Bengal (including Calcutta) ...	23,995	3,964	2,546	30,505
Bombay City (*b*)	8,549	560	788	9,897
Bombay Presidency (excluding Bombay City & Sind) (*b*)	7,527	622	107	8,256
Madras City	9,178	2,416	1,151	12,745
Madras Presidency (excluding Madras City)	4,917	1,664	4,087	10,668
United Provinces	7,352	2,415	2,527	12,294
Punjab	10,836	3,371	316	14,523
Burma	11,444	2,903	3,409	17,756
Bihar and Orissa	5,250	950	983	7,183
Delhi	3,735	876	412	5,023
Central Provinces	3,564	935	984	5,483
Sind	2,578	882	141	3,601
North-West Frontier Province	2,052	1,213	769	4,034
Ajmer-Merwara	261	94	35	390
Assam (*a*)	1,454	299	753	2,506
Total	102,692	23,164	19,008	144,864

(*a*) Figures relate to motor vehicles registered up to 31st December, 1927.

(*b*) Figures represent numbers of vehicles re-registered during the year ended 31st March, 1926.

Motor Cycles.—The total trade expands slowly year by year, but until there is considerable improvement in the country's roads it is difficult to foresee any very great extension in demand. The total imports were :—

Countries of consignment.	1926-27		1927-28	
	No.	Rupees.	No.	Rupees.
United Kingdom	1,665	9,76,004	1,964	11,09,308
United States	75	44,514	67	44,181
Other countries	63	26,365	115	42,735
Total	1,803	10,46,883	2,146	11,96,224

It is encouraging to note that the United Kingdom still controls the market. Imports from " other countries " are drawn from Germany and France.

Motor Omnibuses, Vans and Lorries.—The extension of motor omnibus services both in the large towns and also connecting up-country villages with the nearest railway station continues, and the imports show a further considerable expansion. The vehicles were imported as follows:—

	1926-27 Number.	1927-28 Number.
Vehicles imported with bodies ...	998	1,270
Chassis	5,345	7,412

The provenance of the imports was as follows:—

Countries of consignment.	1926-27		1927-28	
	No.	Rs. (lakhs).	No.	Rs. (lakhs).
United Kingdom	341	19	447	23
Canada...	3,529	48	4,268	55
United States	2,322	49	3,699	67
Other countries	151	3	268	4
Total	6,343	1,19	8,682	1,49

Imports from the United Kingdom comprise the heavier vehicles, which are largely standardised by the tramway companies who operate fleets of 'buses in the large towns and are also used by the transport companies in the ports. The development in the use of the British commercial vehicles among Indian consumers is disappointing. The Indian who promotes his service or transport organisation has usually only a limited amount of capital. He therefore considers low first cost and is attracted by American and Canadian types of vehicles, which have a shorter life, but which are cheap and can be scrapped after a couple of years, thus avoiding the necessity for an elaborate repair and maintenance organisation.

Cycles (other than Motor Cycles and Parts thereof) and Accessories.—The remarkable boom in the cycle trade continued

throughout the year and the imports in 1927-28 were more than three times those of the last pre-war year. In my last report I sounded a note of warning that the trade was being overdone, and there are now unmistakable signs that the market is overstocked. We must therefore look for a falling off in the coming year. The figures were :—

	1925-26	1926-27	1927-28
Number of cycles imported, entire or in sections	96,649	115,528	138,783
	Rs. (lakhs).	Rs. (lakhs).	Rs. (lakhs).
Values of parts of cycles and accessories (excluding rubber tyres)	47	47	55

The total imports of cycles, parts and accessories were drawn as follows :—

Countries of origin.	1925-26 Rs. (lakhs).	1926-27 Rs. (lakhs).	1927-28 Rs. (lakhs).
United Kingdom	87	92	1,01
Germany	13	13	14
Other countries	1	2	2
Total	1,01	1,07	1,17

Owing to the remarkably low prices which have been reached by British manufacturers in the Midlands, coupled with an active selling organisation, they have maintained their share of the trade at 85 per cent. German competition is almost entirely in parts and accessories. The average landed value per machine was Rs.45—say £3 7*s*. 6*d*.

Provisions.—A further advance of Rs.63 lakhs is to be recorded, which is largely due to increased imports of vegetable products (vegetable ghee, vegetable fats or solidified vegetable oil as they are variously known). The subjoined table gives the source of the imports of provisions during the past two years :—

Countries of consignment.	1926-27 Rs. (lakhs).	1927-28 Rs. (lakhs).
United Kingdom	2,25	2,34
Netherlands	1,65	2,06
Straits Settlements	55	42
China (including Hongkong)	14	21
United States	45	48
Australia	13	9
Other countries	60	80
Total	5,77	6,40

In order to arrive at the true competitive position of the United Kingdom, Rs.192 lakhs worth of vegetable product which is almost entirely derived from Holland, and which is not a competitive British product, should be eliminated together with the imports from the Straits Settlements and China, which consist of

Oriental produce. After making these allowances it will be found that the United Kingdom supplies approximately 61 per cent. of the competitive trade.

The most important articles imported were the following :—

Principal articles.	Average of 5 years 1909-10 to 1913-14	1926-27	1927-28
	cwt.	cwt.	cwt.
Farinaceous and patent foods ...	255,900	450,845	417,873
Canned and bottled provisions ...	86,100	109,716	118,647
Biscuits and cakes	72,900	51,341	60,328
Milk (condensed and preserved) ...	103,300	182,845	224,036
Jams and jellies	17,400	14,756	15,525
Bacons and hams	14,500	15,195	15,169
Cocoa and chocolate	4,600	4,936	4,038
Cheese	11,700	11,258	11,507
Vegetable products	*	*	444,431

*Not separately recorded.

Detailed information with regard to the provenance of the imports under each heading in 1927-28 are not yet available, but in 1926-27 the Straits Settlements supplied 45 per cent. of the farinaceous and patent foods imported. The British share of 39 per cent. consisted principally of milk foods for children and invalids. The United States supplied 55 per cent. of the canned fish and also of the canned and bottled fruits. Condensed and preserved milk was mainly drawn from the United Kingdom and Holland. Of the biscuits and cakes, 92 per cent. came from the United Kingdom and small quantities from Australia and Germany. The imports of jams and jellies were divided between the United Kingdom (60 per cent.) and Australia (37 per cent.). The United Kingdom supplied practically the whole of the bacon and hams, but only 51 per cent. of the cocoa and chocolate, severe competition being met with from Holland in cocoa and from Switzerland in chocolate. Two-thirds of the imports of cheese are drawn from Holland.

Vegetable Products.—The imports of solidified vegetable oils have advanced at a phenomenal rate during the last three years and now amount to Rs.192 lakhs (say £1,440,000). They are mainly drawn from Holland and are largely imported through Bombay and Karachi for sale in the Punjab and north-west India.

Liquors.—*Ale, Beer and Porter.*—The following table gives the imports, both quantities and values, during the past two years :—

Countries of consignment.	1926-27		1927-28	
	Gallons.	Rs. (lakhs).	Gallons.	Rs. (lakhs).
United Kingdom	2,380,356	54	2,915,083	63
Germany	1,090,826	30	1,092,440	31
Netherlands	164,575	4	246,432	5
Japan	150,242	3	189,943	3
Other countries	34,049	1	43,280	2
Total	3,820,048	92	4,487,178	1,04

During the year 1926-27, 1,302,985 gallons of beer were imported in bulk, mainly for the use of the troops, of which the United Kingdom supplied no less than 98 per cent. Of the beer imported in bottle, amounting to 2,314,651 gallons, the United Kingdom sent 39 per cent., Germany 46 per cent. and Holland and Japan each about 6 per cent. It is satisfactory to record an increase in the popularity of British light bottled beers during the last two or three years. British brewers, however, do not seem to produce a light beer of the lager type which will stand the climate as well as the one or two principal German brands. A large and lucrative business awaits the firm who can do this. The imports of stout and porter, amounting to 220,155 gallons, were almost entirely drawn from the United Kingdom.

Spirits.—The following table shows the quantities and values of the principal kinds of spirit imported into India :—

Description.	1926-27		1927-28	
	Gallons.	Rs. (lakhs).	Gallons.	Rs. (lakhs).
Brandy	469,224	51	425,696	46
Gin	108,103	10	114,108	11
Liqueurs	18,524	3	16,395	3
Rum	115,444	2	90,659	2
Whisky	542,826	90	547,359	92
Spirit present in drugs ...	131,784	37	141,291	39
,, perfumed	17,348	13	15,079	13
,, denatured	661,737	10	911,125	13
Other sorts	70,501	13	52,801	11

The next table shows the countries of consignment of all spirits :—

Countries of consignment.	1926-27		1927-28	
	Gallons.	Rs. (lakhs).	Gallons.	Rs. (lakhs).
United Kingdom	745,190	1,36	743,368	1,36
Germany	90,727	8	80,307	8
France	429,973	55	388,443	51
Java	759,344	11	994,787	14
U.S.A.	45,217	14	52,656	15
Other countries	65,040	5	54,952	6
Total	2,135,491	2,29	2,314,513	2,30

Brandy is almost entirely obtained from France with small quantities from the United Kingdom and Germany. The United Kingdom supplies 90 per cent. of the gin and Holland 10 per cent. Whisky is virtually a monopoly of the Scottish distillers, but in 1926-27 Germany sent Rs.60,000 of cheap spirit for the bazaar trade. Of the spirit present in drugs, medicines and chemicals the United Kingdom shipped 49 per cent., the United States 35 per cent. and France 9 per cent. Java supplies practically the whole of the denatured spirit, which is denatured at Indian Custom Houses immediately on arrival and before clearance.

Wines.—The imports of wines advanced from 295,720 gallons, valued at Rs.31 lakhs, in 1926-27, to 304,141 gallons, valued at Rs.32 lakhs, in 1927-28. Of the total imports in the former year the United Kingdom supplied 38 per cent., France 35 per cent. and Italy 8 per cent. The United Kingdom figures represent British re-exports from French, Portuguese and Spanish sources.

Paper and Pasteboard.—Although the total imports rose from 2,008,344 cwt. in 1926-27 to 2,089,012 cwt. in 1927-28, the value receded from Rs.308 lakhs to Rs.300 lakhs, due to a fall in prices. The subjoined table shows the percentage shares of the principal countries in the total imports:—

	1913-14 (pre-war)	1924-25	1925-26	1926-27
	Per cent.	Per cent.	Per cent.	Per cent.
United Kingdom	56·2	42·9	41·5	35·5
Norway	5·1	9·0	9·0	10·0
United States	·8	3·1	4·7	4·8
Sweden	3·2	4·4	7·2	7·0
Netherlands	2·5	7·4	9·0	7·8
Japan	1·0	1·0	1·6	1·6
Germany	17·3	21·2	12·1	16·1
Austria	8·3	4·0	6·3	7·6
Hungary	—	·1	—	—
Other countries	5·6	6·9	8·6	9·6
Total	100	100	100	100

Packing Paper.—This trade expands steadily, as the following figures show:—

Countries of consignment.	1926-27		1927-28	
	Cwt.	Rs. (lakhs).	Cwt.	Rs. (lakhs).
United Kingdom	22,868	6	22,170	6
Sweden	55,855	10	91,991	17
Norway	10,986	2	16,306	3
Germany	65,501	13	53,287	12
Netherlands	16,999	3	15,804	2
Other countries	35,316	6	46,681	9
Total	207,525	40	246,239	49

Scandinavia, on account of its natural resources, largely controls this trade, and ships either direct or through Hamburg.

Printing Paper.—There has been a sharp fall in the total imports although the protective duty does not seem to have contributed to this :—

Countries of consignment.	1926-27		1927-28	
	Cwt.	Rs. (lakhs).	Cwt.	Rs. (lakhs).
United Kingdom	86,385	19	102,210	21
Sweden	28,855	4	26,896	4
Norway	156,941	23	173,487	22
Germany	133,488	21	54,015	9
Netherlands	34,696	6	49,718	9
Belgium	17,065	4	18,237	4
Austria...	96,920	15	64,068	9
Other countries	51,558	8	49,989	6
Total	605,908	100	538,620	84

The heavy imports of newsprint are chiefly derived from Scandinavia and Austria, where there are plentiful supplies of wood pulp. The competition of Holland in " Free Printing Papers " is increasing in intensity on account of their low price.

Writing Paper and Envelopes.—In spite of the protective duty of one anna per lb. on writing paper of all sorts, the total trade showed an advance of nearly Rs.5 lakhs :—

Countries of consignment.	1926-27		1927-28	
	Cwt.	Rs. (lakhs).	Cwt.	Rs. (lakhs).
United Kingdom	74,588	30	75,691	32
Sweden	7,962	2	9,687	2
Norway	20,642	5	32,688	8
Germany	26,726	7	16,123	4
Netherlands	19,602	4	18,829	4
Other countries	41,525	10	65,869	13
Total	191,045	58	218,887	63

British makers are experiencing keener competition from the Continent, which supplies lower grade papers at very cheap prices which appeal to the bazaars.

Miscellaneous.—

	1925-26 Rs. (lakhs).	1926-27 Rs. (lakhs).	1927-28 Rs. (lakhs).
Old newspapers in bags and bales	35	38	38
Other kinds of paper ...	22	24	23
Paper manufactures ...	17	16	12

Until three years ago the shipment of old newspapers was largely a British monopoly, but the shipments from America during the past three years have been 54,000, 167,000 and 200,000 cwt. respectively, and in 1926-27 United States shipments represented 30 per cent. of the total values.

Chemicals and Chemical Preparations (*excluding Chemical Manures and Medicines*).—The total imports of chemicals and chemical preparations during the last three years have been as follows :—

	Rs. (lakhs).
1925-26	203
1926-27	244
1927-28	265

Details with regard to the provenance of the imports last year are not available, but the Director-General of Commercial Intelligence, in his Review of the Trade of India in 1926-27, reports on the market as follows :—

" As in the preceding year soda compounds accounted for 43 per cent. of the total value of chemicals imported in 1926-27, and were valued at Rs.1,05 lakhs as compared with Rs.88 lakhs in 1925-26. The United Kingdom had, as usual, the bulk of the trade in soda products and supplied 1,223,000 cwt. valued at Rs.91 lakhs as compared with 1,016,000 cwt., valued at Rs.77 lakhs in 1925-26. Sodium carbonate (soda ash and soda crystals) increased from 811,000 cwt., valued at Rs.47 lakhs, to 990,000 cwt., valued at Rs.58 lakhs, of which 884,000 cwt., valued at Rs.53 lakhs came from the United Kingdom. Caustic soda and sodium bicarbonate also advanced in quantity from 139,000 and 101,000 cwt. to 161,000 and 115,000 cwt., and in value from Rs.16 and Rs.8 lakhs to Rs.18 and Rs.9 lakhs respectively. All other soda compounds showed an increase with the exception of sodium bichromate, which recorded a decrease. Borax showed a small increase in quantity with a decrease in value owing to a reduction in prices. The quantity of acids imported rose by 27 per cent. from 11,000 cwt. to 14,000 cwt., and the value by 12 per cent. from Rs.5⅝ lakhs to Rs.6¼ lakhs. Imports of alum increased from 48,000 cwt. to 61,000 cwt. and of aluminous sulphates from 53,000 cwt., valued at Rs.2 lakhs to 70,000 cwt., valued at Rs.3 lakhs. The quantity of ammonia and salts thereof imported rose from 24,000 cwt. to 31,000 cwt., but the value remained almost stationary at Rs.8 lakhs. There was a good demand for bleaching materials, the imports of which rose from 67,000 cwt., valued at Rs.6 lakhs to 84,000 cwt., valued at Rs.8 lakhs. Among other chemicals copper sulphate, glycerine, lead acetate, potassium chlorate, and zinc chloride showed small increases, but copperas and disinfectants other than naphthalene decreased. Imports of carbide of calcium decreased in quantity but showed a small improvement in value. Imports of sulphur also fell slightly in quantity from

15,200 tons to 15,100 tons, but rose in value from Rs.14 lakhs to Rs.16 lakhs. The consignments from Italy increased from 4,000 tons or 26 per cent. of the total quantity imported in 1925-26 to 11,200 tons or 74 per cent. of the imports in 1926-27, while German supplies fell from 10,300 tons or 68 per cent. to 3,400 or 22 per cent."

The following table shows the position of the principal countries during the years 1925-26 and 1926-27 :—

Principal countries of consignment.	1925-26 Rs. (lakhs).	1926-27 Rs. (lakhs).
United Kingdom	1,24	1,42
Norway	4	4
Germany	42	52
Netherlands	4	6
Belgium	3	4
Italy	6	14
Japan	3	3
United States	6	7
Total imports (all sources) ...	2,03	2,44

The next table gives the percentage share of the principal countries of consignment over a period of years :—

	1913-14 (pre-war year)	1925-26	1926-27	1927-28
	Per cent.	Per cent.	Per cent.	Per cent.
United Kingdom	74·7	61·2	57·9	55·4
Germany	12·4	20·6	21·5	21·5
United States	·3	2·9	2·7	3·3
Italy	5·2	3·1	5·9	6·7
Kenya Colony...	—	1·4	1·4	1·8
Norway	·5	1·8	1·7	2·6
Japan	1·5	1·3	1·4	1·2
Other countries	5·4	7·7	7·5	7·5
Total	100	100	100	100

Both the British " Imperial Chemical Industries " and the German " I.G." are consolidating their interests, strengthening and extending their sales organisation throughout India and are preparing for a determined bid for supremacy in this market, which is likely to become one of the most important markets in the world for chemical products of all kinds.

Dyeing and Tanning Substances.—*Dyes obtained from Coal Tar.—Alizarines.*—The imports were derived as follows :—

Countries of consignment.	1926-27		1927-28	
	lbs.	Rs. (lakhs).	lbs.	Rs. (lakhs).
United Kingdom	741,872	4	1,284,005	8
Germany	2,991,139	19	3,000,738	19
Netherlands	999,816	7	514,379	3
Belgium	153,887	1	62,286	—
Total imports (all sources)...	5,044,663	32	5,172,731	33

The improvement in the share of the United Kingdom is encouraging.

Anilines.—

Countries of consignment	1926-27		1927-28	
	lbs.	Rs. (lakhs).	lbs.	Rs. (lakhs).
United Kingdom	443,291	7	357,063	7
Germany	6,001,810	84	9,005,045	1,16
Netherlands	410,714	8	227,730	4
Belgium	359,007	7	187,207	3
Switzerland	403,943	7	520,442	10
Italy	267,727	4	730,577	12
United States	1,951,513	19	1,326,946	14
Other countries	118,813	2	801,113	13
Total imports ...	9,956,818	1,38	13,156,123	1,79

The Germans, by dint of their remarkable organisation both in manufacturing and in marketing, have completely regained their grip on this valuable trade.

Soap.—The steady progress in this important trade continues. The various types imported were as follows :—

Description.	1926-27		1927-28	
	Cwt.	Rs. (lakhs).	Cwt.	Rs. (lakhs).
Household and laundry soap	340,308	1,00	364,726	1,09
Toilet Soap	43,032	46	43,800	47
Other sorts	19,135	6	13,943	5
Total imports ...	402,475	1,52	422,469	1,61
Of which from—				
United Kingdom	378,738	1,37	398,255	1,47
Other countries	23,737	15	24,214	14
Total	402,475	1,52	422,469	1,61

In household and laundry soaps the British productions are supreme on account *firstly* of their quality and *secondly* of the efficient selling organisation maintained by the leading manufacturers. In toilet soaps, however, American competition is rapidly increasing in the better qualities, and in 1926-27 accounted for 18 per cent. of the total. As I have frequently stated, the American productions are of world-wide repute, are most attractively made up, are extensively advertised and are actively pushed by travellers and agents, who receive very favourable terms. Foreign manufacturers appear to be more ready to meet special market require-

ments in the matter of shape, weight and make up than some of their British competitors. Germany and Austria export small quantities of the cheaper grades for bazaar use.

Paints and Painters' Materials.—*Paints and Colours.*—A satisfactory advance of over Rs.8 lakhs is to be recorded in the period under review. The position is as follows:—

Countries of consignment.	1926-27		1927-28	
	Cwt.	Rs. (lakhs).	Cwt.	Rs. (lakhs).
United Kingdom	257,933	79	291,972	84
Germany	45,789	8	35,690	9
Japan	12,394	4	12,447	3
United States	10,095	5	8,785	6
Other countries	62,545	15	89,278	18
Total imports ...	388,756	1,11	438,172	1,20

Japanese imports consist almost entirely of red lead. American shipments mainly comprise the better qualities of paints for the European demand. Germany, however, is competing very strenuously in the lower grade qualities for the bazaar trade, where cheapness is the main consideration.

Painters' Materials.—These comprise:—

Description.	1926-27		1927-28	
	Cwt.	Rs. (lakhs).	Cwt.	Rs. (lakhs).
Genuine Turpentine	7,087	4	5,869	3
Turpentine substitute ...	4,182	1	4,665	1
Varnish	32,911	21	40,893	23
Other kinds	Not recorded	7	Not recorded	8
Total	—	33	—	35

Scandinavia is now competing in genuine turpentine. In 1926-27 Sweden, Norway and Denmark contributed 45 per cent. of the trade, as compared with the United Kingdom (41 per cent.) and Germany (13 per cent.). Sixty-four per cent. of the turpentine substitute was supplied by the United Kingdom and 25 per cent. by the Straits Settlements. The valuable trade in varnish, which is principally used by the railway companies, was divided between the United Kingdom (88 per cent.), the United States (5 per cent.) and Germany (5 per cent.). British varnish manufacturers are strongly represented on the spot and one or two of them have also opened branch works in the country.

Drugs and Medicines. (*excluding Chemicals and Narcotics*). —The principal items, which are enumerated under this comprehensive heading, are :—

Description.	1926-27 Rs. (lakhs).	1927-28 Rs. (lakhs).
Camphor	28	26
Cod liver oil	1	1
Preparations of opium and morphia ...	1	1
Proprietary and patent medicines ...	27	29
Quinine salts	26	23
Total imports of all kinds ...	1,90	1,98

Details with regard to the imports last year are not yet available, but of the total trade in drugs and medicines in 1926-27 the United Kingdom contributed 41 per cent., Germany 16 per cent., Japan 12 per cent., United States 8 per cent. and lesser values from China, Straits Settlements and France. Camphor is mainly drawn from Japan, with increasing quantities from Germany. Cassia Lignea is obtained almost entirely from China. Cod liver oil is 70 per cent. British, but imports from Holland are increasing. The valuable trade in proprietary and patent medicines is divided between the United Kingdom (54 per cent.), Germany (15 per cent.), United States (10 per cent.) and France (7 per cent.). Of the quinine salts the United Kingdom supplied 62 per cent., Germany 24 per cent., Java 7 per cent. and the United States 4 per cent. Imports of quinine from Java appear to be steadily decreasing in contrast with those from Germany, which is now a serious competitor of the United Kingdom. A large portion of the Government requirements of quinine are now drawn from the local cinchona plantations in several provinces.

The lack of a Pure Food and Drugs Act in India has handicapped reliable British suppliers for many years, as they are constantly being undersold by competitors whose drugs do not approach the standard of the British Pharmacopœa. The Government of India are now ascertaining the views of Local Governments with regard to the desirability of legislation.

Apparel (*excluding Hosiery, Boots and Shoes*).—The following table shows the imports under each main heading :—

Article.	1926-27 Rs. (lakhs).	1927-28 Rs. (lakhs).
Apparel, (including drapery, uniforms and accoutrements)	82	79
Gold and silver thread	29	28
Hats, caps, bonnets and hatters' ware	33	30
Lametta	6	10
Second-hand clothing	25	13
Waterproofed clothing	3	4
Total imports of all kinds ...	1,78	1,64

In 1926-27 the United Kingdom supplied 66 per cent. of the apparel, the competitors being Japan, United States, Germany and Italy. Gold and silver thread is still mainly drawn from France, but German imports increase steadily. Hats, caps, &c., are drawn from the United Kingdom (40 per cent.), Italy (41 per cent.), Japan (9 per cent.) and Germany (3½ per cent.). Lametta is derived from Germany and France. The trade in second-hand clothing is a valuable one and is centred in Calcutta and Karachi. The United Kingdom supplied 62 per cent. and the United States 37 per cent. The American competition is increasing rapidly. The relatively small imports of waterproofed clothing are drawn from the United Kingdom.

The provenance of the total imports was as follows :—

Countries of consignment.	1926-27 Rs. (lakhs).	1927-28 Rs. (lakhs).
United Kingdom	86	68
Germany	21	25
France	24	28
Italy	16	13
Japan	13	14
United States	11	7
Other countries	7	9
Total	1,78	1,64

The reduced share of the United Kingdom is probably largely due to the falling off in the import of second-hand clothing.

Hosiery. —*Cotton.*—A slight reduction occurred in the total trade, which was made up as follows :—

	1926-27 Rs. (lakhs).	1927-28 Rs. (lakhs).
Stockings and socks	24	24
Underwear	1,18	1,08
Other sorts	5	5
Total	1,47	1,37
Of which from—		
United Kingdom	3	2
Japan	1,18	1,13
United States	5	3
Other countries	21	19

The bulk of the imports consist of Japanese socks, singlets, &c., which are of a quality below that produced by the British manufacturer. The United States competes keenly in high-grade hosiery for European use, while imports from " other countries " represent, in the main, cheap bazaar hosiery of German manufacture.

Woollen.—The imports of woollen hosiery are considerable and tend to increase :—

	1925-26	1926-27	1927-28
Rupees ...	21,07,708	18,47,398	20,51,290

In 1926-27 the United Kingdom supplied 92 per cent. of the whole trade, negligible quantities being obtained from Germany, Italy and Japan.

Haberdashery and Millinery.—The following are the principal headings :—

Article.	1926-27 Rs. (lakhs).	1927-28 Rs. (lakhs).
Lace and embroidery	42	41
Towels not in the piece	8	14
Other sorts	63	71

The provenance of the imports was as follows :—

Principal countries of consignment.	1926-27 Rs. (lakhs).	1927-28 Rs. (lakhs).
United Kingdom	27	30
Germany	36	31
France	4	4
Switzerland	17	20
Italy	6	8
Japan	15	22
Other countries	8	11
Total	1,13	1,26

The trade in lace and embroidery is divided between Switzerland and Germany, the small import from the United Kingdom being largely re-export trade. Towels not in the piece comprise low-quality towels from Japan to the extent of 85 per cent. and the high-grade article from the United Kingdom to the extent of 12 per cent. The comprehensive heading of " other sorts " in 1926-27 was contributed to by the United Kingdom (37 per cent.), Germany (29 per cent.), Japan (9 per cent.) and lesser values from Switzerland, Italy, France and Czechoslovakia.

Boots and Shoes.—The demand for imported boots and shoes has expanded very rapidly of recent years and the imports now exceed the pre-war figures, as the following table clearly shows :—

	Pre-war average.	War average.	1925-26	1926-27	1927-28
Pairs (in 1,000) ...	2,323	1,170	1,357	1,915	2,773
Rupees (in 1,000) ...	56,73	41,31	40,40	57,13	66,98

The average price per pair of boots and shoes imported last year was Rs.2·41 (say 3*s.* 7*d.*).

The provenanace of the imports was as follows :—

Countries of consignment.	1926-27		1927-28	
	Pairs.	Rs. (lakhs).	Pairs.	Rs. (lakhs).
United Kingdom	711,928	29	817,366	29
Japan	74,557	1	171,781	2
United States	573,939	14	692,367	16
Other countries	554,759	13	1,091,450	20
Total	1,915,183	57	2,772,964	67

In 1926-27 the United Kingdom supplied 81 per cent. of the imports of leather boots and shoes, the principal competition being from Czechoslovakia (6 per cent.) and France (4 per cent.). In footwear of materials other than leather, however, the United Kingdom only contributed 22 per cent., whereas the United States shipped 48 per cent., largely rubber soled shoes (" Plimsolls "), Austria 11 per cent., Czechoslovakia 4 per cent. and Japan 3 per cent. Both American and Continental manufacturers are strengthening their agency arrangements and competition may be expected to increase.

Leather.—The imports of unmanufactured leather were as follows :—

Description.	1926-27 Rs. (lakhs).	1927-28 Rs. (lakhs).
Hides, tanned or dressed	3	3
Skins, tanned or dressed	3	4
Unwrought	10	12
Leather cloth (including artificial leather)	4	4
	20	23

The import of tanned or dressed hides is equally divided between the United Kingdom and Ceylon. Similarly, the import of tanned or dressed skins is shared equally by the United Kingdom and the United States. Unwrought leather is supplied by the United Kingdom (38 per cent.) and the United States (54 per cent.). Leather cloth is drawn as to 63 per cent. from the United Kingdom and 31 per cent. from the United States. Serious American competition is noticeable in 1926-27 for the first time.

The principal business is in leather manufactured goods :—

Description.	1926-27 Rs. (lakhs).	1927-28 Rs. (lakhs).
Bags and Trunks	1	2
Pickers	9	9
Picking bands and straps	9	8
Roller skins	8	9
Saddlery and harness	2	2
Other sorts	11	11

The imports of industrial leathers such as pickers, picking bands and roller skins for use in the jute and cotton mills are predominantly British, although there were small consignments of pickers from Holland and picking bands and straps from Holland and France. The United States supplied over a lakh's worth of fancy manufactured leathers.

The following table shows the countries of consignment of the total imports of leather and leather goods :—

Principal countries of consignment.	1926-27 Rs. (lakhs).	1927-28 Rs. (lakhs).
United Kingdom	43	45
Germany	2	1
Ceylon	1	1
United States	10	12
Other countries	4	5
Total	60	64

Belting for Machinery.—*Cotton Belting.*—

Countries of origin.	1926-27 Rs. (lakhs).	1927-28 Rs. (lakhs).
United Kingdom	14	14
Other countries	1	1
Total	15	15

Germany sent Rs.48,000 worth.

Leather Belting.—

Countries of origin.	1926-27 Rs. (lakhs).	1927-28 Rs. (lakhs).
United Kingdom	22	27
United States	9	9
Other countries	2	2
Total	33	38

The United States is competing keenly in the highest grades of leather belting. American makers keep stocks in the country and give generous agency terms. Japan shipped over a lakh's worth and small quantities were drawn from Germany and Holland.

Belting of other Materials (including Coir).—

Countries of origin.	1926-27 Rs. (lakhs).	1927-28 Rs. (lakhs).
United Kingdom	26	28
Germany	4	3
United States	3	3
Other countries	1	1
Total	34	35

This heading mainly comprises balata belting.

Bobbins.—It is satisfactory to note that the falling off in the trade in 1926-27 has been made good in the period under review :—

Countries of origin.	1925-26 Rs. (lakhs).	1926-27 Rs. (lakhs).	1927-28 Rs. (lakhs).
United Kingdom	33	31	34
Germany	2	2	1
Other countries	3	2	3
Total	38	35	38

Other countries are mainly Japan and Sweden. It is satisfactory to note a reduction in the competition from Germany, which had tended to increase since the war. Efforts to manufacture bobbins in India have, so far, not met with much success.

Books and Printed Matter.—The total imports were :—

	1925-26	1926-27	1927-28
Rupees ...	56,87,578	56,60,183	61,97,992

In 1926-27 the United Kingdom supplied 83 per cent., the United States 8 per cent. and Germany 2 per cent. British publishing houses are strongly entrenched and maintain their position.

Stationery (*excluding Paper*).—The total trade recovered by nearly Rs.10 lakhs, of which the United Kingdom secured Rs.7½ lakhs.

Countries of consignment.	1925-26 Rs. (lakhs).	1926-27 Rs. (lakhs).	1927-28 Rs. (lakhs).
United Kingdom	51	45	53
Germany	24	25	23
Japan	5	4	6
United States	4	4	4
Other countries	4	4	6
Total	88	82	92

German competition is very keen in the cheap types of stationery for the bazaar trade, which is also catered for by Japan. Arrivals from the United States mainly comprise high-grade pens, pencils, &c., which find a sale by means of wide advertising and active canvassing by travellers. The backbone of the British trade is the supply of office stationery and requisites by British manufacturers, several of whom maintain active branches in the country.

Tobacco.—The steady increase in the imports of cigarettes is most remarkable and is a sign of the rise in the standard of life of the community based on general prosperity. The main forms in which tobacco was imported are as follows :—

Description.	1925-26	1926-27	1927-28
	lbs.	lbs.	lbs.
Unmanufactured tobacco	4,906,909	5,703,449	3,984,951
Cigars	39,727	33,002	35,973
Cigarettes	3,411,975	4,174,711	5,595,966
Tobacco for pipes and cigarettes ...	276,050	256,570	254,257
Other sorts	36,830	37,422	56,898
Total imports	8,671,491	10,205,154	9,928,045

The provenance of the imports of cigarettes was as follows :—

Countries of consignment.	1925-26 Rs. (lakhs).	1926-27 Rs. (lakhs).	1927-28 Rs. (lakhs).
United Kingdom	1,57	1,93	2,38
Aden and Dependencies ...	·3	·3	·3
Egypt	·9	·8	·8
United States	·2	·3	·3
Other countries	·4	·3	·4
Total	1,58·8	1,94·7	2,39·8

When to these figures is added the total of the production of the Imperial Tobacco Company's factories at Monghyr, Bangalore and elsewhere, the immensity of the market will be realised.

Rubber Manufactures.—*Rubber Tyres.*—*Pneumatic Motor Covers.*—The total number of covers imported rose from 310,551 to 418,808 and of tubes from 347,302 to 446,873. The provenance of the imports was as follows :—

Countries of consignment.	1926-27 Rs. (lakhs).	1927-28 Rs. (lakhs).
United Kingdom	42	48
Germany	5	4
France	26	23
Italy	5	9
Canada	17	36
United States	23	48
Other countries	(*a*)	1
Total	1,18	1,69

(*a*) Less than 1 lakh.

The outstanding feature of the past three years has been the great advance in the imports of American and Canadian tyres, due to a determined bid for the market by three or four leading manufacturers. Some of the principal American makers have now opened branch factories in the United Kingdom, and it is possible that, in future, they may meet the Indian demands from these branches. The British position almost entirely rests on the efficient and widespread organisation of the Dunlop Company. Service is the keynote of the tyre trade, and unless the other British

tyre makers are prepared to incur considerable expense in developing a widespread marketing system with service depots, they cannot expect to meet the superior organisation of their foreign rivals. The reduction of the import duty from 30 to 15 per cent. and the rapid extension in the use of motor cars should insure a continuous expansion in the total trade.

Pneumatic Motor Cycle Covers.—

	1926-27 Rs. (lakhs).	1927-28 Rs. (lakhs).
United Kingdom	1·30	1·16
United States	·04	·15
Other countries	·47	·42
Total	1·81	1·73

The firm grip of British manufacturers on the motor cycle trade places the British tyre in a favourable position.

Pneumatic Cycle Covers.—

	1926-27 Rs. (lakhs).	1927-28 Rs. (lakhs).
United Kingdom	7·1	7·2
Germany	·5	·2
France	5·8	4·4
Other countries	·6	·6
Total	14·0	12·4

French competition in pedal cycle covers is still keen.

Solid Rubber Tyres for Motor Vehicles.—

	1926-27 Rs. (lakhs).	1927-28 Rs. (lakhs).
United Kingdom	7	6·6
Germany	·8	1·7
United States	3·5	4·3
Other countries	·3	2
Total	11·6	14·6

Tubes.—

	1926-27 Rs. (lakhs).	1927-28 Rs. (lakhs).
Pneumatic Motor Tubes	24	32
,, motor cycle tubes	·5	·9
,, cycle tubes	9·4	9·7

Other Manufactures of Rubber (except Apparel and Boots and Shoes).—The total imports amounted to :—

	1925-26	1926-27	1927-28
Rupees ...	27,99,616	31,28,436	29,98,572

This heading includes mechanical rubbers of all kinds, brake fittings, hose, &c., &c. In 1926-27 the United Kingdom secured 47 per cent., Germany 24 per cent., United States 19 per cent., with

lesser quantities from the Straits Settlements and Japan. German competition is increasing at a very rapid rate.

Instruments, Apparatus, Appliances and Parts thereof.—This comprehensive classification is made up as follows:—

Description.	1926-27 Rs. (lakhs).	1927-28 Rs. (lakhs).
Electrical apparatus	2,52	2,83
Musical instruments	27	23
Optical instruments	8	8
Cinematograph films	23	26
Photographic apparatus	23	23
Scientific instruments	22	22
Surgical instruments	21	23
Wireless apparatus	5	16
Other kinds	20	23
Total imports	4,01	4,47

Musical Instruments are drawn from the United Kingdom (46 per cent.), Germany (35 per cent.) with smaller quantities from the U.S.A. and Switzerland.

Optical Instruments.—Germany supplies 54 per cent. of the optical instruments, the United Kingdom 15 per cent., Japan 14 per cent., and the U.S.A. 9 per cent. Competition from America and Japan is mainly in spectacle lenses and frames, but Germany competes in the whole range of instruments, and her trade is growing rapidly at the expense of British makers.

Cinematograph Films.—The American grip on the screen is clearly reflected in the fact that she supplied 55 per cent. in value of the films imported. The United Kingdom sent 25 per cent. and Germany 9 per cent. Imports from the United Kingdom largely include copies of American films shipped from London. British made films are, however, increasing in number and popularity, and this growing British industry should find a good market in India for its productions.

Photographic Apparatus. In 1926-27 the United Kingdom supplied 55 per cent., the U.S.A. 21 per cent., and Germany 16 per cent. The Kodak Company give good service on the spot, while German houses are extending their representation and sales.

Scientific Instruments.—The United Kingdom contributes 71 per cent. of this trade, Germany 18 per cent., and the U.S.A. 7 per cent. The imports have tended to decline of late years.

Surgical Instruments.—In 1926-27 the United Kingdom supplied 57 per cent., Germany 26 per cent., and the U.S.A. 11 per cent. British manufacturers are actively represented by branch houses or agents, and appear to be holding their own against American competitors. The import of the cheaper German instruments is, however, increasing steadily.

Wireless Apparatus.—The Indian Broadcasting Company commenced to transmit from their Bombay Station in July, 1927, and from Calcutta in August of that year. The result is shown in an increase in the total amount of apparatus imported from Rs.5 lakhs to over Rs.15 lakhs, the latter figure including a considerable amount of station equipment. The results of the first year's working show a considerable loss, but the company are continuing to broadcast and are endeavouring to raise further working capital.

A list of licensed importers of wireless apparatus may be obtained by British firms from the Department of Overseas Trade.

The imports during the past two years were as follows :—

Countries of origin.	1926-27 Rs. (lakhs).	1927-28 Rs. (lakhs).
United Kingdom	4·3	10·6
United States	·3	·9
Other countries	·3	4·2
Total	4·9	15·7

The share of Germany, Holland and other Continental sources of supply increased considerably during the year.

Electrical Apparatus.—This is by far the most important item in the whole group. The following statement gives the value and origin of the several classes of electrical apparatus imported during the last two years :—

Description of Electrical Apparatus.	1926-27 Rs. (lakhs).	1927-28 Rs. (lakhs).
Electric fans and parts thereof	32	34
Electric wires and cables	81	90
Telegraph and telephone instruments ...	5	6
Electric lamps and parts thereof ...	39	39
Batteries	10	11
Carbons, electric	1	1
Accumulators	17	22
Electric lighting accessories and fittings, including switches	15	15
Meters	6	7
Electro-medical apparatus (including X-Ray apparatus)	2	2
Switchboards (other than telegraph and telephone)	4	5
Unenumerated	40	51
Total imports of all kinds ...	2,52	2,83

Analysing the above total we find that the imports of electric wires and cables rose from Rs.81 to Rs.90 lakhs, the increased trade being almost entirely secured by the United Kingdom whose share advanced from Rs.71 to Rs.80 lakhs. The United States and Holland each supplied about Rs.2½ lakhs worth. The trade in electric glow lamps and parts thereof, which rose from Rs.21 to Rs.26 lakhs, was divided between the Netherlands (Rs.9¾ lakhs), the United Kingdom (Rs.6¾ lakhs), Germany (Rs.2 lakhs) and " other countries " (Rs.7 lakhs). Electric lamps of other kinds, amounting to Rs.9½ lakhs, were obtained from the United States (Rs.6½ lakhs), Germany (Rs.1¼ lakhs) and the United Kingdom (Rs.1 lakh). The Rs.34 lakhs worth of electric fans imported were obtained from the United Kingdom (Rs.18 lakhs), Italy (Rs.8 lakhs), United States (Rs.2 lakhs) and " other countries " (Rs.6 lakhs). Of a total of Rs.51 lakhs worth of unenumerated

electrical apparatus the United Kingdom supplied Rs.28 lakhs, the United States Rs.10 lakhs, Germany Rs.6 lakhs and Japan Rs.1 lakh. Accumulators were imported to a total of Rs.22 lakhs, of which the United Kingdom supplied Rs.19 lakhs and the United States Rs.1½ lakhs. Meters and switchboards were almost entirely obtained from the United Kingdom, but of the Rs.11 lakhs worth of batteries imported the United States supplied Rs.6½ lakhs, the United Kingdom Rs.1 lakh and "other countries" Rs.3 lakhs.

The provenance of the total imports was as follows:—

Principal countries of consignment.	1926-27 Rs. (lakhs).	1927-28 Rs. (lakhs).
United Kingdom	1,70	1,85
Germany	22	28
Netherlands	10	13
Italy	7	8
Japan	2	3
United States	33	35
Other countries	8	11
Total	2,52	2,83

Earthenware and Porcelain.—This classification includes:—

Article.	1926-27 Rs. (lakhs).	1927-28 Rs. (lakhs).
Earthenware—		
Pipes of earthenware	1	·5
Sanitary ware	7	6
Other kinds	46	37
Porcelain—		
Electrical	1	2
Other kinds	28	35
Total imports	83	80·5
Of which from—		
The United Kingdom	30	30
Germany	6	6
Japan	33	33
Other countries	14	11·5

Earthenware pipes are almost entirely drawn from the United Kingdom, but Belgian shipments show a tendency to be competitive. The United Kingdom supplies 94 per cent. of the sanitary ware. Other kinds of earthenware, including crockery, tableware, &c., were in 1926-27 divided between the United Kingdom (43 per cent.), Japan (23 per cent.), Germany (11 per cent.), with lesser quantities from Belgium and the United States. The competition of Germany and Japan is being keenly felt by Staffordshire makers, particularly in the Rangoon market.

The imports of electrical porcelain in 1926-27 were drawn from the United Kingdom (36 per cent.), Germany (37 per cent.) and

Japan (24 per cent.). Other kinds of porcelain were supplied by Japan (80 per cent.), the United Kingdom (7 per cent.) and Germany 6 (per cent.). The principal ports of entry of earthenware and porcelain in order of importance are Bombay, Rangoon, Calcutta, Madras and Karachi.

Glass and Glassware.—The following table shows the types of glass and glassware imported :—

Description.	1926-27 Rs. (lakhs).	1927-28 Rs. (lakhs).
Bangles	85	89
Beads and false pearls	31	27
Bottles and phials	39	33
Funnels, globes and glass parts of lamps	19	22
Scientific glassware	2	2
Sheet and plate glass	32	30
Tableware	9	9
Other glassware	36	36
Total imports	2,53	2,48

The provenance of the imports was as follows :—

Countries of consignment.	1926-27 Rs. (lakhs).	1927-28 Rs. (lakhs).
United Kingdom	26	23
Germany	52	49
Belgium	27	24
Austria	4	4
Czechoslovakia	63	61
Italy	6	6
Japan	66	69
Other countries	9	12
Total	2,53	2,48

From the point of view of the United Kingdom the trade in glass bangles and beads is non-competitive, the former being practically a monopoly of Czechoslovakia and Japan and the latter being drawn from those countries with fair quantities from Germany and Italy. Of the imports of soda water bottles, Germany now supplies 54 per cent. and the United Kingdom 41 per cent. Other kinds of bottles are drawn from Japan (46 per cent.), Germany (31 per cent.) and the United Kingdom (14 per cent.). As I stated last year, there is scope for greater activity in India by British bottle manufacturing concerns, who are rapidly losing their market. Germany supplies 53 per cent. of the funnels, globes and glass parts of lamps, United States 18 per cent., Japan 11 per cent., Austria 6 per cent. and Belgium 5 per cent. The United Kingdom sent a trivial £3,000 worth. In scientific glassware Germany supplies half the demand and the balance is divided between the United Kingdom and the United States. The imports of sheet and plate glass are drawn from Belgium (69 per

cent.) and the United Kingdom (27 per cent.). British makers ship the better qualities and the Belgian manufacturers supply the large bazaar demand for cheap window glass. Tableware is obtained from Japan (55 per cent.), Germany (20 per cent.), Belgium (9 per cent.) and the United Kingdom (8 per cent.). Miscellaneous glassware is drawn from Japan, Germany and the United Kingdom in the order given.

Building and Engineering Materials (*other than Iron, Steel and Wood*).—The trade shows steady, regular expansion and improved last year to the extent of Rs.5 lakhs. The principal items in the classification are the following :—

Description.	1926-27 Rs. (lakhs).	1927-28 Rs. (lakhs).
Asphalt	24	25
Bricks (other than firebricks)	1	1
Firebricks	3	4
Portland cement	56	62
Cement, other kinds	2	3
Tiles	25	20
Other kinds	13	14
Total imports	1,24	1,29

Detailed figures of the imports of asphalt are not yet available for the past year, but in 1926-27 the United Kingdom supplied 9 per cent. while the United States sent over 50 per cent. and the Netherlands 40 per cent. The imports from Trinidad have entirely ceased, while those from the United States expand at a very rapid rate. With the inevitable extension of roads throughout the country the demand for asphalt should increase considerably. The negligible imports of bricks are mainly drawn from Italy, while firebricks are almost entirely imported from the United Kingdom. Tiles are supplied by Italy (33 per cent.), Belgium (24 per cent.), the United Kingdom (26 per cent.), with lesser quantities from Germany and France.

Cement.—The imports of cement were obtained as follows :—

Countries of consignment.	1926-27		1927-28	
	Tons.	Rs. (lakhs).	Tons.	Rs. (lakhs).
United Kingdom	71,513	44	90,585	54
Germany	9,199	5	5,350	3
Japan	9,309	4	9,449	4
Other countries	11,015	5	6,897	4
Total	101,036	58	112,281	65

The improvement in the British position is satisfactory although there is little hope for much expansion in the total trade in view

of the competition of local cement works, which produce cement fully equal to the British standard specification. The principal import market is Rangoon in view of its distance from the Indian works.

Hardware (*excluding Cutlery and Electro-plated Ware*).—There was an advance of nearly Rs.18 lakhs in the total trade, which more than made good the reduction in the previous year. Last year's aggregate of Rs.525 lakhs is well above the pre-war annual average of Rs.317 lakhs. The figures are as follows :—

Article.	1926-27 Rs. (lakhs).	1927-28 Rs. (lakhs).
Agricultural implements	17	19
Buckets of tinned or galvanised iron ...	1	2
Builders' hardware	34	34
Domestic hardware, other than enamelled ironware	10	12
Enamelled iron ware	40	37
Gas mantles	6	8
Implements and tools (other than agricultural implements and machine tools) ...	79	77
Lamps, metal	84	81
,, glass	1	1
Parts of lamps other than glass	7	10
Safes and strong boxes of metal	3	3
Stoves	9	10
Other sorts	2,16	2,31
Total imports	5,07	5,25

The provenance of the imports during the last two years was as follows :—

	1926-27 Rs. (lakhs).	1927-28 Rs. (lakhs).
Of which from—		
United Kingdom	1,85	2,06
Sweden	15	16
Germany	1,58	1,61
Austria	13	13
Japan	29	28
United States	71	62
Other countries	36	39
Total	5,07	5,25

The next table of percentage shares shows the position of the leading suppliers over a period of years :—

	1913-14 (pre-war year).	1924-25	1925-26	1926-27	1927-28
	Per cent.	Per cent.	Per cent.	Per cent.	Per cent.
United Kingdom	57	40	38	36	39
Germany ...	18	27	27	31	31
United States ...	10	16	16	14	12
Japan	1	5	7	6	5
Other countries ...	14	12	12	13	13
Total ...	100	100	100	100	100

The whole question of the reasons for the success of German competition in the market for cheap hardware in the bazaars was dealt with at length in Chapter II of my last report. It is encouraging to note that the relative British position has improved slightly during the past year, but the fact remains that we are still nearly 20 per cent. below the pre-war figure. The following notes give the statistical position in each section of the trade:—

Agricultural Implements.—The implements which are included in this heading are mainly hoes, forks, &c., for the tea gardens of Assam and southern India and for the rubber plantations of Madras and Burma. The United Kingdom supplies 85 per cent. and the United States 11 per cent. Local competition from the Agricultural Implements Company of Jamshedpur, which is now a branch of the Tata Iron & Steel Co., Ltd., is likely to become more acute. The concern is under efficient management, new and improved plant is being installed and an active sales campaign is being undertaken. These works produce picks, kodalies, powrahs, hammer heads, &c., &c., of fair quality.

Galvanised Buckets.—This used to be a valuable British trade before the war, but buckets are now made locally from imported sheets and galvanised in the country. The imports are almost all into Rangoon and are drawn from the United Kingdom.

Builders' Hardware, such as Locks, Hinges, Door Bolts, &c.—The imports from Great Britain are declining steadily in favour of cheap German productions, which are usually below the British article in quality, but so far below it in price that dealers cannot afford to pay the premium required for the better quality. The imports in 1926-27 were drawn from the United Kingdom (21 per cent.), Germany (57 per cent.), Sweden (12 per cent.) and the United States (7 per cent.).

Domestic Hardware.—A similar state of affairs prevails in this trade. In 1926-27 Germany supplied 48 per cent., the United Kingdom 32 per cent., the United States 4½ per cent., and lesser quantities were drawn from Sweden, Austria and Japan.

Enamelled Ironware.—This considerable trade is divided between Japan (48 per cent.), Germany (24 per cent.), Czechoslovakia (10 per cent.), Austria (7 per cent.) and the United Kingdom (6 per cent.). British shippers only meet the demand for the higher grades. In the cheap bazaar trade Japan is competing very keenly with the Continent, particularly in the Burma market.

Gas Mantles.—In 1926-27 Germany shipped 64 per cent., the United States 21 per cent. and the United Kingdom 11 per cent. Bombay is the principal market, followed by Calcutta and Rangoon.

Metal Lamps.—Birmingham exporters have almost entirely lost the valuable trade in hurricane and house lamps which they enjoyed in pre-war days. They now only supply 2½ per cent. of the total imports and their contribution consists entirely of the high-grade article for European use. In 1926-27 Germany supplied 60 per cent., the United States 28 per cent., Austria 5 per cent. and Czechoslovakia 2 per cent.

Implements and Tools.—There is an immense business in hand tools of all kinds which is shared by the United Kingdom (55 per cent.), the United States (22 per cent.), Germany (16 per cent.), with lesser quantities from France and Sweden.

Safes and Strong Boxes of Metal.—The import trade shows little movement owing to the rapidly increasing production of cheap safes in Bombay and of strong boxes of all kinds at Multan and other centres in northern India. The United Kingdom supplied 33 per cent. of the imports, Germany 25 per cent., Austria 22 per cent. and France 10 per cent. Bankers' strong-rooms and the best quality safes are still supplied by British makers, but the cheap safe for the bazaar is usually of German or Austrian make.

Stoves. —Sweden supplied 72 per cent., the United Kingdom 13 per cent. and the remainder were obtained from the United States, Germany and Austria. The Swedish share largely consists of stoves of the well-known " Primus " variety.

Other Sorts.—Nearly half the total imports are placed, owing to difficulty of classification, under this omnibus heading, which amounted to over 2 crores in value. In 1926-27 the United Kingdom supplied 49 per cent., Germany 24 per cent., the United States 10 per cent., with smaller quantities from Japan, Czechoslovakia, Austria and Belgium.

Cutlery.—The classification distinguishes between pruning knives and other kinds as follows :—

	1925-26 Rs. (lakhs).	1926-27 Rs. (lakhs).	1927-28 Rs. (lakhs).
Pruning knives	2	2	2
Other kinds	31	39	36
Total imports ...	33	41	38
Of which from—			
The United Kingdom ...	9	9	10
Germany	22	30	26
Other countries	2	2	2
Total imports ...	33	41	38

Pruning knives for the tea gardens are all obtained from the United Kingdom. The well-known Sheffield makes of table cutlery find a sale among the European and wealthy Indian community, but have been ousted from the bazaars by the cheaper German products, which are so much lower in price that there is really little competition.

Polishes.—The aggregate trade advanced by Rs.2½ lakhs during the year :—

Article.	1925-26 Rs. (lakhs).	1926-27 Rs. (lakhs).	1927-28 Rs. (lakhs.
Leather polish	15	13	15
Metal polish	6	5	5
Wood polish	1	1	1
Other sorts	—	2	2
Total imports ...	22	21	23

The trade shows progressive growth and the United Kingdom still supplies 90 per cent. There is slight competition from the United States in leather polishes and in wood polish.

Arms, Ammunition and Military Stores.—This comprehensive heading is made up as follows :—

Description.	1926-27 Rs. (lakhs).	1927-28 Rs. (lakhs).
Cartridge cases (filled)	15	15
Cartridge cases (empty)	·7	·5
Explosives	22	27
Firearms and parts thereof	24	24
Gunpowder	1	1
Other sorts	6	3
Total imports	68·7	70·5

Filled cartridge cases were last year obtained from the United Kingdom (74 per cent.), the United States (15 per cent.), and " other countries " (notably Belgium) (10 per cent.). The imports of empty cartridge cases are very small and were drawn from the United Kingdom (60 per cent.), the balance being obtained from Germany and the United States.

The trade in explosives is very firmly held by British manufacturers. In 1926-27 the United Kingdom supplied 82 per cent., Belgium 11 per cent. and Germany 5 per cent. German competition was entirely in blasting fuses, while Belgium supplied a small quantity of gelatine dynamite.

Firearms are imported from the United Kingdom (70 per cent.), Germany (12 per cent.), the United States (8 per cent.) and Belgium (6 per cent.). American competition shows a tendency to decline at the expense of Germany and Belgium, which supply cheap rifles and shot-guns for Indian consumption. The United Kingdom supplies all the gunpowder.

In addition to the imports on private account enumerated above mention should be made of Rs.36 lakhs worth of arms, ammunition and military stores imported on Government account from the United Kingdom.

Brushes and Brooms.—These include :—

	1926-27 Rs. (lakhs).	1927-28 Rs. (lakhs).
Paint and varnish brushes	3·4	3·4
Toilet brushes	4·3	5·1
Other brushes	4·7	4·8
Brooms	·4	·5
Total imports	12·8	13·8

Paint and varnish brushes were drawn from the United Kingdom (81 per cent.), Germany (13 per cent.) and Austria (3 per cent.). In toilet brushes, however, the United States contributes 54 per cent., Germany 21 per cent. and the United Kingdom only 12 per cent. Japan sent 6 per cent., largely cheap tooth brushes. In brushes, as in other toilet requisites, the American manufacturers are making great headway by dint of advertising, active sales propaganda and the grant of generous terms to agents and travellers. Other brushes for industrial and general use are drawn from the United Kingdom (48 per cent.), Germany (25 per cent.), Japan (11 per cent.) and the United States (10 per cent.). The small trade in brooms is largely divided between the United Kingdom and the Straits Settlements.

Toys and Requisites for Games and Sports.—The steady increase in this trade continues :—

	1925-26	1926-27	1927-28
Rupees ...	54,27,078	61,11,178	63,81,947

Toys account for nearly two-thirds of the whole and are obtained from Germany (42 per cent.), Japan 29 per cent.), the United Kingdom (16 per cent.) and the United States (6 per cent.). Imports from the United Kingdom have made a slight recovery during the past three years.

Playing cards were imported in 1926-27 to the extent of Rs.14 lakhs. The United States contributed 49 per cent., Belgium 36 per cent., the United Kingdom 6 per cent. and Germany 5 per cent.

Requisites for games and sports were imported in 1926-27 to the value of Rs.10½ lakhs and were drawn from the United Kingdom (67 per cent.), Norway (14 per cent.), Germany (9 per cent.), with lesser shares from the Straits Settlements, the United States and Japan. Indian manufacturers at Sialkot and other centres in the Punjab now compete very keenly in tennis racquets and almost every other branch of the trade, and last year actually exported Rs.2½ lakhs worth.

Tea Chests (*entire or in sections*).—The imports fluctuate according to the state of the tea trade. Last year an improvement of Rs.9 lakhs is to be recorded.

Countries of consignment.	1925-26 Rs. (lakhs).	1926-27 Rs. (lakhs).	1927-28 Rs. (lakhs).
United Kingdom	68	49	61
Russia...	—	—	1
Finland	14	9	1
Estonia	—	3	7
Other countries	3	2	2
Total	85	63	72

Germany supplied most of the chests under the heading of other countries, the imports from Japan having been reduced to Rs.30,000. South India imported Rs.21,000 worth of metal chests, but this trade has now almost ceased.

Umbrellas and Umbrella Fittings.—The imports of complete umbrellas, including parasols and sunshades, were as follows :—

Countries of consignment.	1926-27		1927-28	
	No.	Rs. (lakhs).	No.	Rs. (lakhs).
United Kingdom	215,896	6	173,000	5
Other countries	53,669	1	121,036	2
Total	269,565	7	294,036	7

The imports from other countries are derived mainly from France, Switzerland, Japan and Germany. This trade is not likely to show much expansion in future as umbrellas are being more and more made up in the country from imported cloth and fittings.

Umbrella fittings were imported as follows:—

Countries of consignment.	1925-26 Rs. (lakhs).	1926-27 Rs. (lakhs).	1927-28 Rs. (lakhs).
United Kingdom	10	9	11
Germany	17	21	27
Japan	13	14	16
Other countries	1	1	1
Total	41	45	55

Germany is rapidly increasing her share of this trade at the expense of the United Kingdom and Japan.

Jewellery and Plate of Gold and Silver (*excluding Imitation Jewellery, Precious Stones and Pearls unset*).—

Article.	1925-26 Rs. (lakhs).	1926-27 Rs. (lakhs).	1927-28 Rs. (lakhs).
Jewellery	13	31	10
Plate of gold and silver ...	6	7	7
	19	38	17

The heavy import duty of 30 per cent. tends to check any development in this trade. The sporadic advance in 1926-27 represented an abnormal import through Bombay, probably on account of one of the Indian States. In that year, of the jewellery imported, the United Kingdom contributed 70 per cent., France 12 per cent., Arabia 5 per cent., Ceylon 3 per cent., and lesser values from the Straits Settlements, China, Japan and United States. Gold and silver plate is mainly drawn from the United Kingdom.

Electro-plated Ware.—The imports were:—

	1925-26	1926-27	1927-28
Rupees ...	5,34,982	6,65,327	7,14,034

This is predominantly a British trade (90 per cent.). Small shipments are obtained from Germany and France.

Carriages and Carts (*excluding Railway Carriages*) and parts thereof.—The total imports were:—

	1925-26	1926-27	1927-28
Rupees ...	15,76,581	19,48,847	16,64,301

The United Kingdom supplies 46 per cent., Japan 27 per cent., Germany 12 per cent. and the United States 5 per cent. The whole of the small trade in perambulators and go-carts, amounting to Rs.2½ lakhs, is British.

Oil Cloth and Floor Cloth.—The imports are practically stationary at Rs.9 lakhs worth per annum, of which the United Kingdom supplies Rs.5 lakhs, United States Rs.3 lakhs and Germany Rs.¾ lakhs. The principal markets are Bombay and Rangoon.

Furniture and Cabinetware.—

	1925-26	1926-27	1927-28
Rupees ...	22,00,397	29,68,275	30,61,860

In 1926-27 the United Kingdom supplied 48 per cent., Germany 21 per cent., the United States 9 per cent., Italy 7 per cent. and Japan 5 per cent. Germany and Italy competed principally in mouldings, while American shipments largely comprised camp furniture of patent design.

Matches.—The United Kingdom does not export matches to India on a commercial scale, but the London market is financially interested in the Indian developments of the Swedish Match Combine. The import figures for the past year may be of interest :—

Principal countries of consignment.	1926-27		1927-28	
	Gross.	Rs. (lakhs).	Gross.	Rs. (lakhs).
Sweden	4,520,576	48	2,935,123	32
Norway	125,951	2	67,798	1
Czechoslovakia	319,525	3	115,400	1
Japan	956,236	11	329,700	3
Other countries	179,677	2	72,296	2
Total	6,101,965	66	3,520,317	39

The Swedish Combine now operate well-equipped modern factories in the principal Indian markets and maintain a wide-spread sales organisation. It may be expected, therefore, that the decline in imports will continue at an increasing rate. The report of the Indian Tariff Board on the state of the match industry is dealt with in Chapter III.

Packing (Engine and Boiler) of all kinds excluding Asbestos.—

	1925-26	1926-27	1927-28
Rupees ...	6,26,170	4,01,848	4,64,459

In 1926-27, the last year for which detailed figures are obtainable, the United Kingdom supplied 90 per cent., the United States 5 per cent. and Germany and France each an unimportant quantity. The large consignment of Rs.2½ lakhs worth in 1925-26 appears to have been quite abnormal.

Toilet Requisites.—This large heading includes all articles for toilet use not separately classified elsewhere. The latest figures are :—

	1925-26	1926-27	1927-28
Rupees ...	49,56,366	57,02,163	62,34,809

In 1926-27 the United Kingdom supplied 41 per cent., the United States 26 per cent., Germany 12 per cent., France 8 per cent. and

Japan 5 per cent. American competition in the high-grade articles for European and wealthy Indian use, and German competition in the bazaar trade are seriously affecting the extension of the sale of British products.

Articles Imported by Post (*not included elsewhere*).—This postal traffic amounts to nearly £3,000,000 in value :—

	1925-26	1926-27	1927-28
Rupees ...	3,48,78,820	3,72,04,496	4,02,04,171

In 1926-27 the United Kingdom contributed 67 per cent., Italy 11 per cent., and considerable values were also sent by Germany, Belgium, Japan and China.

The exchange of cash-on-delivery parcels between India and Great Britain and Northern Ireland was introduced in 1920-21 and has grown steadily. The following are the returns of the C.O.D. parcels received from Great Britain and Northern Ireland in 1925-26 and 1926-27 :—

Year.	Number.	Value.
1925-26	95,030	£279,934
1926-27	94,837	£290,306

This system has been found to be of advantage to United Kingdom stores and mail-order firms, and is a great convenience to residents in India.

RAW MATERIALS AND SEMI-MANUFACTURED ARTICLES.

Coal.—The imports in 1926-27 were unduly reduced on account of the prolonged coal stoppage in the United Kingdom, and it is therefore not surprising that during the past year the total imports advanced by 121,000 tons and by over Rs.27 lakhs in value.

Countries of consignment.	1926-27		1927-28	
	Tons.	Rs. (lakhs).	Tons.	Rs. (lakhs).
United Kingdom	12,908	3	52,336	14
Union of South Africa ...	85,788	19	154,586	32
Portuguese East Africa ...	25,521	5	35,216	8
Australia	12,613	3	8,727	2
Other countries	4,903	1	12,132	2
Total	141,733	31	262,997	58

The following table shows the average prices per ton of Bengal, Cardiff and Natal coal in the Bombay market in 1925, 1926 and the first six months of 1927 :—

	Bengal. Per ton.			Cardiff. Per ton.			Natal. Per ton.		
	Rs.	As.	Ps.	Rs.	As.	Ps.	Rs.	As.	Ps.
1925	19	6	3 (*a*)	29	3	0 (*a*)	21	15	3 (*a*)
1926	18	8	9 (*a*)	24	6	5 (*c*) (*b*)	19	1	2 (*b*)
1927 (6 months)	19	14	8 (*a*)	No quotation			19	13	5 (*b*)

(*a*) ex scales.

(*b*) Sterling quotations converted into rupee prices at current rates of exchange.

(*c*) Two-thirds, one-third c.i.f.

Mineral Oils.—The following are the latest statistics of this valuable trade :—

Kerosene Oil.—

Countries of consignment.	1926-27 Rs. (lakhs).	1927-28 Rs. (lakhs).
Russia...	—	26
Georgia	—	81
Straits Settlements (including Labuan) ...	18	15
Sumatra	3	—
Borneo	31	64
United States	3,77	3,12
Other countries	—	48
Total imports	4,29	5,46

See " Inquiry into Oil Industry," Chapter III,

Fuel Oils.—The imports were :—

Countries of consignment.	1926-27 Rs. (lakhs).	1927-28 Rs. (lakhs).
Persia	1,32	1,72
Straits Settlements (including Labuan) ...	12	11
Borneo	52	42
Other countries	—	8
Total imports	1,96	2,33

The Anglo-Persian Oil Co., Ltd., supply the bulk of the fuel oils, which are mostly imported through Bombay.

Lubricating Oils.—Batching oils for use in the jute mills of Bengal were imported to the value of nearly Rs.77 lakhs entirely from Dutch Borneo and the United States. Other lubricating oils were derived as follows :—

Origin.	1925-26 Rs. (lakhs).	1926-27 Rs. (lakhs).	1927-28 Rs. (lakhs).
United Kingdom	16	14	14
United States	1,25	1,21	1,11
Other countries	15	12	16
Total	1,56	1,47	1,41

The principal American companies, such as the Vacuum and the Valvoline, have very strong local sales organisations, and British suppliers find it difficult to make headway against them.

Salt.—Foreign salt is chiefly imported into Bengal and Burma, as the consumers in these provinces show a preference for finer crushed salt and they are the most remote from the principal Indian producing centres.

The statistics are as follows :—

Principal countries of consignment.	1926-27		1927-28	
	Tons.	Rs. (lakhs).	Tons.	Rs. (lakhs).
United Kingdom	53,598	14	81,219	27
Germany	57,941	15	56,579	17
Spain	57,332	14	83,552	24
Aden and Dependencies ...	179,130	39	180,275	53
Egypt.....	132,455	30	123,212	35
Italian East Africa	54,551	12	56,223	15
Other countries	6,763	2	15,106	4
Total	541,770	1,26	596,166	1,75

Sugar.—In the period under review sugar constituted the third most valuable item of import into India, being exceeded only by cotton manufactures and iron and steel. In spite of a very large indigenous production the needs of the immense population with their vegetarian diet are so enormous that an annual import of £10,000,000 sterling is required to meet them. The subjoined table shows the imports of 16 *Dutch Standard and above (excluding beet)* :—

Principal countries of consignment.	1926-27 Rs. (lakhs).	1927-28 Rs. (lakhs).
United Kingdom	13	1
Netherlands	3	—
Belgium	4	1
Ceylon	5	6
Straits Settlements	3	4
Java	13,55	13,74
China (including Hongkong)	7	7
Mauritius and Dependencies	—	—
Canada	11	1
United States	26	1
Total imports (all sources) ...	14,41	13,96

The elimination of almost all suppliers other than Java is noteworthy. Mauritius, which used to be the second most important source of supply, is now entirely out of the Indian market as, owing to the preference enjoyed by Empire sugar in the United Kingdom, the Mauritius crop has been diverted to that country.

Beet Sugar.—There has been a remarkable drop in the imports of beet sugar, which had been expanding of recent years. The figures are :—

Principal countries of consignment.	1926-27 Rs. (lakhs).	1927-28 Rs. (lakhs).
United Kingdom	7	—
Russia...	51	24
Poland	34	—
Germany	1,07	3
Belgium	26	—
Italy	7	—
Austria	19	1
Hungary	59	5
Czechoslovakia	64	2
Other countries	13	2
Total	3,87	37

The extraordinary decline in the import of beet sugar is entirely due to the drop in the price of cane sugar, which resulted in a practical stoppage of the import of beet sugar.

The following table gives the other types of sugar imported :—

Description.	1926-27 Rs. (lakhs).	1927-28 Rs. (lakhs).
Sugar, 15 Dutch Standard and below ...	8	17
Molasses	53	40

The imports of molasses are all drawn from Java, and the imports of sugar of 15 Dutch Standard and below from the United States.

APPENDIX TO CHAPTER V.

VALUE OF IMPORTS FROM PRINCIPAL COUNTRIES, DISTINGUISHING PRINCIPAL ARTICLES.

TABLE A.

Articles.	Pre-war average.	1925-26	1926-27	1927-28
UNITED KINGDOM.		(Rs. 000's omitted).		
Imports therefrom—				
Animals, living	5,02	18,20	13,38	13,67
Apparel	59,29	83,16	86,26	68,36
Arms, ammunition, etc. ...	30,60	55,58	53,69	55,39
Artificial silk yarn	—	23,80	14,07	46,84
Asbestos	—	14,05	19,43	29,89
Belting for machinery ...	36,26	62,82	62,17	68,45
Bobbins	—	33,40	30,71	34,30
Books and printed matter	41,05	48,68	47,45	53,01
Boots and shoes	51,33	26,61	29,22	29,35
Building materials ...	59,89	76,75	64,71	74,72
Carriages and carts ...	19,11	9,03	9,07	9,05
Chemicals	69,55	1,24,01	1,41,55	1,46,72
China clay	—	13,53	16,56	18,07
Coal and coke	41,33	30,87	6,96	16,44
Cordage and rope	4,39	2,87	6,92	4,37
Cotton—				
Raw	58,67	2,78	44,64	7,58
Twist and yarn	3,35,18	3,13,80	3,08,08	3,09,49
Piecegoods—				
Grey	20,73,55	17,08,36	15,24,09	15,54,39
White	10,87,38	15,08,86	16,57,15	14,19,94
Coloured	11,29,72	11,90,90	12,57,96	12,59,06
Other manufactures ...	1,40,25	1,76,53	1,53,45	1,55,08
Cutlery	10,53	9,19	9,03	9,86
Cycles and parts	29,40	87,07	91,70	1,00,61
Drugs and medicines ...	54,03	84,60	86,26	84,23
Dyeing and tanning substances	6,90	12,18	11,30	15,96
Earthenware and porcelain	30,50	29,05	29,95	30,30
Flax manufactures... ...	28,83	31,69	30,00	35,66
Furniture	10,84	9,07	14,45	13,14
Glass and glassware ...	22,26	26,23	25,47	23,16
Haberdashery and millinery	61,21	29,48	27,48	30,10
Hardware	1,88,61	1,97,76	1,84,45	2,06,25
Instruments, apparatus, etc.	1,04,88	2,22,18	2,50,55	2,73,35
Ivory	11,33	9,24	9,84	9,13
Jewellery, etc.	14,51	12,39	27,48	11,03
Jute manufactures ...	10,09	12,84	9,85	4,84
Leather, including hides, tanned, etc.	38,59	31,80	43,17	44,57
Liquors—				
Ale, beer and porter ...	45,64	51,09	54,48	63,40
Spirit	69,47	1,34,62	1,35,64	1,36,07
Wines	13,62	11,48	11,94	11,84
Machinery and millwork ...	4,97,69	11,87,23	10,65,86	12,53,38

TABLE A—*continued.*

Articles.	Pre-war average.	1925-26	1926-27	1927-28
		(Rs. 000's omitted).		
Metals—				
Aluminium	5,38	22,84	23,08	47,57
Brass	6,13	1,27,96	77,33	89,22
Copper	1,67,45	39,67	28,27	45,34
Iron	28,88	13,70	8,36	10,48
Iron or steel	6,96,13	11,60,99	9,93,24	13,63,91
Lead	13,99	8,88	7,70	7,32
Steel	42,02	49,70	37,29	77,89
Zinc	14,85	13,45	17,70	19,94
Others	27,43	15,79	24,22	23,30
Motor cars and motor cycles, etc.	74,50	1,23,58	1,36,09	1,69,94
Oils, mineral	22,31	21,38	19,56	25,69
Oils, vegetable, animal, etc.	17,76	14,43	15,80	16,92
Packing, engine and boiler	4,98	3,18	3,63	3,86
Paints and painters' materials	56,00	99,89	1,04,52	1,12,19
Paper and pasteboard ...	73,44	1,16,63	1,09,30	1,09,59
Piecegoods of cotton and artificial silk	—	58,10	1,17,19	99,07
Pitch and tar	8,72	4,03	2,19	2,77
Polishes	9,48	19,89	18,85	21,42
Precious stones	14	16,91	12,48	13,84
Printing materials	14,70	20,50	20,79	24,47
Provisions	1,34,15	1,71,50	2,03,23	2,34,07
Railway plant, etc. ...	5,54,48	4,24,53	2,00,84	3,71,44
Rubber manufactures, including tyres, etc. ...	16,45	96,01	88,71	95,59
Salt	23,44	19,55	14,08	26,93
Ships, parts of	18,00	8,70	2,86	15,84
Silk manufactures, including yarn	19,07	9,79	8,67	8,37
Soap	56,52	1,35,67	1,37,10	1,47,30
Stationery	41,44	51,30	45,13	52,62
Sugar	25,37	35,51	41,74	1,54
Tallow and stearine ...	10,43	9,54	8,65	5,32
Tea chests	41,32	67,52	48,86	60,81
Tobacco	54,83	1,76,23	2,11,97	2,55,23
Toilet requisites	10,35	21,43	23,57	24,32
Toys and requisites for games	16,75	12,97	14,11	15,34
Umbrellas	24,71	18,35	14,75	16,25
Woollen manufactures, including yarn	1,85,24	2,11,14	1,94,84	2,10,56
Other articles	1,49,67	3,97,00	3,50,73	3,63,64
Total	91,58,01	1,15,32,02	1,10,53,85	1,19,20,95

TABLE B.

Articles.	Pre-war average.	1925-26	1926-27	1927-28
ITALY.		(Rs. 000's omitted).		
Imports therefrom—				
Apparel	6,98	12,78	16,40	13,00
Art, works of	45	1,45	1,08	1,01
Building materials ...	2,57	13,02	12,63	13,49
Buttons	—	6,91	12,12	5,44
Chemicals	4,72	6,32	14,34	17,67
Dyeing and tanning substances	1,49	2,20	4,60	12,81
Fruits and vegetables ...	8,48	15,45	37,23	30,50
Glassware	4,26	8,37	6,37	5,95
Instruments	1,70	8,66	8,13	9,09
Liquors	78	2,46	3,08	3,40
Machinery	1,44	8,22	6,38	12,79
Metals—				
Aluminium	9	3,31	6,80	5,95
Brass	1,09	46	1,16	20
German silver	—	4,46	1,90	1,16
Others	67	6,22	8,13	8,62
Motor cars, etc.	66	29,94	40,10	39,34
Paper and pasteboard ...	79	3,71	3,56	6,70
Rubber manufactures ...	13	18,11	5,15	10,53
Stone and Marble	2,48	3,38	3,61	3,62
Sugar	23	3,10	7,88	34
Textiles—				
Artificial silk yarn ...	—	33,71	64,15	66,24
Cotton-twist and yarn ...	4,98	6,96	4,36	5,65
Cotton manufactures ...	45,22	66,78	81,80	96,11
Haberdashery & millinery	4,32	6,67	5,97	8,28
Silk manufactures	19,83	11,85	24,72	23,46
Piecegoods of cotton and artificial silk	—	37,42	80,82	91,31
Wool manufactures ...	4,07	50,69	69,06	87,61
Other articles	27,41	53,06	84,58	95,54
Total	1,44,84	4,25,67	6,16,11	6,76,31

TABLE C.

Articles.	Pre-war average.	1925-26	1926-27	1927-28
BELGIUM.		(Rs. 000's omitted).		
Imports therefrom—				
Artificial silk	—	6,25	9,01	8,08
Arms, etc.	26	3,96	4,23	2,15
Building materials ...	4,04	5,59	7,33	4,41
Cotton manufactures, including yarn	42,12	17,02	30,10	25,31
Dyeing and tanning substances	10,28	5,57	9,41	3,60
Earthenware and porcelain	3,45	1,48	1,64	2,09
Glass and glassware ...	16,92	22,76	26,69	24,42
Hardware	5,58	3,66	4,12	4,36
Liquors	1,50	1,76	1,59	1,61
Machinery and millwork ...	1,76	29,64	24,61	29,17
Manures	75	9,25	8,15	7,22
Metals—				
Brass	37	3,67	2,27	1,90
Copper	3,54	10,09	21,91	17,39
Iron	15,95	3,23	7,31	1,99
Iron or steel	45,46	1,77,41	1,93,24	2,51,17
Steel	63,54	1,01,60	1,12,00	1,31,43
Motor cars, etc.	4,15	1,38	1,10	1,85
Paints and painters' materials	2,08	2,84	5,38	5,88
Paper and pasteboard ...	5,00	9,12	11,20	9,66
Precious stones	1	47,19	37,13	62,43
Provisions	1,41	26,95	10,58	25,64
Railway plant, etc. ...	4,28	27,64	38,65	59,30
Sugar	29	15,92	30,74	1,14
Woollen manufactures ...	2,11	23,47	15,09	9,43
Other articles	40,61	55,61	66,60	57,00
Total	2,76,00	6,13,06	6,80,08	7,47,63

TABLE D.

Articles.	Pre-war average.	1925-26	1926-27	1927-28
GERMANY.		(Rs. 000's omitted).		
Imports therefrom—				
Apparel	14,87	16,07	20,61	24,75
Bobbins	—	2,50	2,48	1,56
Building materials ...	6,72	2,59	6,93	3,66
Buttons	—	5,06	6,49	7,28
Carriages	2,81	1,08	2,50	1,21
Chemicals	10,62	41,87	52,48	56,86
Cutlery	7,95	22,25	30,29	26,40
Cycles	1,75	12,75	12,96	14,54
Drugs and medicines ...	6,19	20,63	33,35	45,71
Dyeing substances ...	87,40	82,36	1,06,05	1,39,57
Glassware	23,69	39,89	51,81	49,10
Hardware	57,24	1,42,68	1,58,32	1,61,15
Instruments	13,57	46,92	52,62	57,31
Liquors	19,41	35,02	39,10	39,96
Machinery	30,27	85,99	94,59	1,04,83
Metals—				
Aluminium	12,16	21,75	18,02	5,15
Brass	1,56	78,89	1,27,24	95,93
Copper	93,41	97,03	86,64	37,05
Iron	2,86	54	9	55
Iron or steel	86,97	98,17	91,31	81,01
Steel	65,19	17,91	33,14	33,25
Zinc	3,24	2,93	13,70	4,47
Motor cars, etc.	5,64	2,84	4,05	5,47
Oils	19,57	49,98	31,40	33,77
Paints and painters' materials	5,58	8,48	10,36	10,90
Paper and pasteboard ...	21,82	34,16	49,77	35,13
Paper making materials ...	1,61	7,09	6,72	1,61
Printing materials	1,02	5,19	5,62	7,82
Railway plant	12,19	18,11	27,81	17,85
Rubber manufactures ...	3,82	16,34	15,21	13,10
Salt	9,46	9,07	15,13	16,87
Stationery	5,04	24,35	24,93	22,95
Sugar	3,84	3,63	1,10,88	3,59
Textiles—				
Artificial silk	—	14,07	33,68	56,88
Cotton manufactures ...	83,71	30,93	47,29	36,37
Haberdashery	22,10	21,48	36,21	30,51
Silk manufactures ...	16,81	5,74	8,49	7,53
Wool manufactures ...	90,62	62,87	67,34	81,96
Toys	11,10	15,13	17,68	15,05
Umbrellas	7,66	17,65	21,45	27,38
Other articles	66,09	1,08,80	1,18,98	1,18,30
Total	9,35,56	13,30,79	16,90,72	15,34,34

TABLE E.

Articles.	Pre-war average.	1925-26	1926-27	1927-28
JAPAN.		(Rs. 000's omitted).		
Imports therefrom—				
Ale, beer and porter ...	3	1,74	2,72	3,38
Apparel	9,17	11,11	13,15	14,35
Bobbins	—	1,68	1,03	1,53
Brass, bronze, etc. ...	7	36,91	33,36	30,56
Brushes and brooms ...	48	70	78	1,30
Buttons of all sorts ...	—	9,68	11,62	8,97
Camphor	11,48	16,62	18,19	17,17
Carriages	11	3,45	5,34	3,85
Cement	1	2,30	3,88	4,21
Chemicals	93	2,72	3,35	3,30
Coal and Coke	7,02	2,73	16	1,66
Copper	27,99	5	6	5
Cotton, raw	9	56	56	4,12
,, hosiery	65,23	1,11,38	1,17,66	1,13,54
,, piecegoods ...	6,10	6,88,15	6,57,55	8,24,75
,, yarn	6,16	4,24,80	3,20,21	2,23,60
,, other manufactures	2,12	24,06	20,74	19,00
Cutlery	—	31	10	8
Drugs and medicines (other than camphor)	1,72	8,50	7,86	5,33
Earthenware and porcelain	4,23	34,84	33,12	32,59
Furniture and cabinetware	71	1,23	1,56	2,26
Glass and glassware—				
Bangles	5	23,67	20,64	25,64
Beads and false pearls ...	7,61	11,06	9,69	7,77
Bottles and phials ...	1,00	10,46	11,80	10,89
Funnels, globes, etc. ...	58	2,62	2,27	2,42
Table ware	1,41	6,07	5,05	5,30
Others	3,35	13,61	16,96	16,74
Haberdashery & millinery	10,88	23,60	14,71	21,97
Hardware	3,59	37,09	28,95	27,40
Instruments	85	5,37	3,91	5,32
Iron or steel	—	15	8	2,50
Leather	38	24	34	43
Machinery and millwork ...	63	2,95	3,02	2,39
Matches	28,40	24,63	10,58	3,47
Paints & painters' materials	—	3,90	3,82	3,40
Paper and pasteboard ...	55	4,60	4,79	7,37
Provisions & oilman's stores	1,57	2,44	3,18	4,64
Rubber manufactures ...	—	1,14	1,20	86
Silk, raw	1,15	1,25	1,28	3,24
Silk manufactures, including yarn	1,31,45	1,29,45	1,37,85	1,57,61
Spices, ginger	3,40	2,41	59	45
Starch and farina	7	26	3	22
Stationery (excluding paper)	2,17	5,25	4,43	5,88
Tea chests	87	26	30	27
Toilet requisites	1,31	3,59	3,06	4,02
Toys & requsiites for games	3,16	11,77	11,18	13,55
Umbrella fittings	4,91	13,11	14,27	15,89
Wood—timber	32	13,36	18,94	11,42
,, manufactures ...	71	2,87	4,04	3,75
Woollen manufactures (including yarn)	8	20,57	11,01	12,01
Other articles	10,25	57,64	40,27	97,77
Total	3,64,35	18,19,00	16,47,24	17,90,19

TABLE F.

Articles.	Pre-war average.	1925-26	1926-27	1927-28
UNITED STATES.		(Rs. 000's omitted).		
Imports therefrom—				
Aluminium	4,26	25,33	35,13	37,82
Apparel	33	10,95	11,30	6,95
Arms	80	5,05	4,02	5,32
Belting for machinery ...	1,11	9,08	11,42	11,86
Boots and shoes	54	5,08	14,41	15,84
Building materials ...	88	10,91	13,93	16,71
Carriages	72	56	1,10	1,44
Chemicals	22	5,82	6,61	8,77
Clocks and watches ...	3,82	7,23	6,57	7,08
Copper	—	18,98	2,47	7,69
Cotton, raw	27,72	1,56	2,11,19	4,37,32
,, piecegoods ...	26,44	41,92	45,01	71,45
Drugs and medicines ...	4,18	13,30	17,68	20,23
Dyeing substances ...	—	16,77	19,38	14,82
Furniture	1,44	2,18	2,76	3,93
Glassware	1,17	3,86	4,77	5,33
Hardware	24,72	80,83	71,21	62,22
Instruments	5,86	44,81	59,24	63,66
Iron and steel	48,56	81,24	96,49	57,02
Leather	—	5,75	10,11	12,47
Machinery	24,56	1,40,98	1,39,27	1,57,31
Motor cars, etc.	8,49	1,64,45	1,77,90	2,54,83
Oils, mineral	2,19,66	5,56,62	5,40,57	4,61,10
Paper and pasteboard ...	1,21	13,23	14,76	13,36
Provisions	3,80	33,76	44,09	47,87
Railway plant	54	14,70	20,82	10,36
Rubber	16	37,53	34,74	65,08
Ships	24	3	29	16
Spirit	5,34	13,19	14,11	15,64
Stationery	2,05	4,31	3,60	4,47
Sugar	18	5,00	35,94	1,08
Tobacco	5,90	32,56	39,87	28,81
Toilet requisites	2,22	14,44	15,11	17,82
Wood and timber	6,56	3,76	6,60	8,03
Other articles	15,35	81,58	91,34	89,33
Total	4,49,03	15,07,35	18,23,81	20,43,18

REPORTS by H.M. Trade Commissioners, Commercial Diplomatic and Consular Officers on commercial and financial conditions in the following countries, issued, or in course of preparation, by the Department of Overseas Trade :—

A.—During the year 1927.

Argentina	... ...	2s. 6d. (2s. 7d.)	
Belgium	... ...	4s. 6d. (4s. 8d.)	
Brazil	... ...	1s. 6d. (1s. 7d.)	
Canada	... ...	2s. 6d. (2s. 7d.)	
Canary Islands	...	1s. 0d. (1s. 1d.)	
China	... ...	1s. 6d. (1s. 7d.)	
Czechoslovakia	...	1s. 6d. (1s. 7d.)	
Denmark	... ...	1s. 6d. (1s. 7d.)	
East Africa	... ...	2s. 0d. (2s. 1d.)	
Esthonia	... ...	1s. 0d. (1s. 0½d.)	
Egypt	... ...	2s. 0d. (2s. 1d.)	
Finland	... ...	1s. 0d. (1s. 0½d.)	
France	... ...	7s. 6d. (7s. 9d.)	
Germany	... ...	3s. 6d. (3s. 8d.)	
Greece	... ...	1s. 6d. (1s. 7d.)	
India	... ...	4s. 0d. (4s. 2d.)	
Italy	... ...	3s. 6d. (3s. 8d.)	
Latvia	... ...	9d. (9½d.)	
Morocco, Algeria, Tunisia, Tripoli and Cyrenaica	...	4s. 6d. (4s. 8d.)	
Netherlands	...	2s. 6d. (2s. 7d.)	
Netherlands East Indies		3s. 0d. (3s. 2d.)	
New Zealand	...	2s. 0d. (2s. 1d.)	
Norway	... ...	2s. 0d. (2s. 1d.)	
Palestine	... ...	1s. 0d. (1s. 0½d.)	
Panama and Costa Rica		1s. 6d. (1s. 7d.)	
Peru	... ...	2s. 0d. (2s. 1d.)	
Poland	... ...	1s. 6d. (1s. 7d.)	
Portuguese East Africa		1s. 6d. (1s. 7d.)	
Roumania	... ...	1s. 0d. (1s. 0½d.)	
Siam	... ...	1s. 6d. (1s. 7d.)	
Switzerland	... ...	1s. 6d. (1s. 7d.)	
Turkey	... ...	1s. 0d. (1s. 0½d.)	
United States	...	3s. 0d. (3s. 2d.)	
Report on the Japanese Cotton Industry	...	3s. 0d. (3s. 2d.)	

B.—During the year 1928.

Argentina	... ...	(*In preparation*)	
Australia	... ...	3s. 0d. (3s. 2d.)	
Austria	... ...	1s. 6d. (1s. 7d.)	
Belgium	... ...	4s. 0d. (4s. 2d.)	
Bulgaria	... ...	1s. 0d. (1s. 0½d.)	
Chile	... ...	3s. 6d. (3s. 8d.)	
China	... ...	(*In preparation*)	
Cuba	... ...	1s. 0d. (1s. 0½d.)	
East Africa	... ...	(*In preparation*)	
Ecuador	... ...	(*In preparation*)	
Egypt	... ...	1s. 6d. (1s. 7d.)	
France	... ...	5s. 0d. (5s. 2d.)	
Germany	... ...	3s. 6d. (3s. 8d.)	
Greece	... ...	2s. 0d. (2s. 1d.)	
Honduras and El Salvador	...	1s. 6d. (1s. 7d.)	
Hungary	... ...	1s. 6d. (1s. 7d.)	
India	... ...	(*See Cover*)	
Italy	... ...	3s. 6d. (3s. 8d.)	
Japan	... ...	3s. 0d. (3s. 2d.)	
Jugo-Slavia	... ...	1s. 6d. (1s. 7d.)	
Lithuania	... ...	9d. (9½d.)	
Mexico	... ...	2s. 0d. (2s. 1d.)	
Netherlands	... ...	3s. 0d. (3s. 2d.)	
Nicaragua	... ...	6d. (6½)	
Persia	... ...	1s. 6d. (1s. 7d.)	
Philippine Islands	...	(*In preparation*)	
Poland	... ...	1s. 6d. (1s. 7d.)	
Portugal	... ...	1s. 6d. (1s. 7d.)	
Roumania	... ...	2s. 0d. (2s. 1d.)	
South Africa	... ...	2s. 0d. (2s. 1d.)	
Spain	... ...	1s. 6d. (1s. 7d.)	
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DEPARTMENT OF OVERSEAS TRADE

Conditions and Prospects of United Kingdom Trade IN INDIA

1930-31

(Revised to August, 1931)

REPORT

BY

THOMAS M. AINSCOUGH, C.B.E., M.Com., F.R.G.S.

H.M. Senior Trade Commissioner in India and Ceylon

(The previous Report covered the year 1929-30)

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DEPARTMENT OF OVERSEAS TRADE.

COMMERCIAL REPRESENTATION ABROAD.

To foster British overseas trade, the Department has developed and controls the following Services of Commercial Intelligence Officers :—

1. In the Empire.

The Trade Commissioner and Imperial Trade Correspondent Services.

At the present time there are 17 Trade Commissioners' offices. These are situated, four in Canada (Montreal, Toronto, Vancouver, Winnipeg) ; three in South Africa (Capetown, Durban, Johannesburg) ; two in Australia (Sydney, Melbourne) and India (Calcutta and Bombay—to cover also Ceylon), and British West Indies (Trinidad, Jamaica) ; and one each in New Zealand (Wellington), Irish Free State (Dublin), British East Africa (Nairobi), and Malaya (Singapore).

The Trade Commissioners have the assistance of Imperial Trade Correspondents at a number of important centres.

In various parts of the Empire in which at present there are no Commissioners, there are Correspondents with whom the Department deals direct.

The Department is represented in India by Mr. T. M. Ainscough, C.B.E., H. M. Senior Trade Commissioner, Calcutta, and Mr. W. D. Montgomery Clarke, H. M. Trade Commissioner, Bombay.

2. In Foreign Countries.

(*a*) *The Commercial Diplomatic Service attached to the British Diplomatic Missions.*

This service consists of 44 officers who are stationed in all the more important foreign markets of the world. The members of the Commercial Diplomatic Service are styled " Commercial Counsellors " in the highest grade, and " Commercial Secretaries " in the two lower grades. They are members of the staff of the British Embassy or Legation in which they serve.

The Commercial Diplomatic Officer has general supervision over the commercial work of the consular officers in his area and, with the co-operation of these two services, a complete network of Government commercial representatives is thrown over foreign countries.

(*b*) *The British Consular Service.*

Particular attention has been given to the commercial side of consular work since the re-organisation of the service. In certain countries where no Commercial Diplomatic Officer is stationed the senior Consular Officer undertakes duties of a similar character.

Further information regarding the above services can be obtained on application to the Department of Overseas Trade, 35, Old Queen Street, London, S.W.1.

Members of British firms are urged to call upon the Department's representative abroad when they visit an overseas country. It is also important that they should make a point of their representatives abroad keeping in close touch with the Department's officers.

NOTE.

It should be understood that the views expressed in annual reports are the views of the officers themselves, and are not necessarily in all respects those of the Department.

COVERING DESPATCH.

To the Right Honourable
the President of the Board of Trade.

Office of H. M. Senior Trade Commissioner in India,
Fairlie House,
Fairlie Place,
Calcutta.
October 8th, 1931.

SIR,

I have the honour to forward for your information a Report on the Conditions and Prospects of United Kingdom Trade in India during the Indian fiscal year 1930-31, revised to August, 1931.

The period under review has been one of the most critical in the history of trade relations between the United Kingdom and India. After reaching the trough of the world-wide economic depression, the Indian market was prejudicially affected by the unsettled political conditions, of which the most remarkable manifestation in the commercial field was the boycott of foreign goods; this boycott reacted disastrously upon internal and external trade alike, inflicted heavy losses upon traders, and dealt a severe blow at India's credit overseas. The combined effect of the economic slump and the political agitation has been seriously to weaken the position of the United Kingdom exporter in important branches of the import trade and to stimulate the substitution of the lower-priced products of indigenous manufacture and also of our German and Japanese competitors. Although the influence of the political movement is, at the moment, waning, the deepening of the agricultural depression and the widespread lack of confidence in the future are factors which will retard recovery.

Since the report was written, two events of paramount importance have taken place which will have wide repercusssions on Indian trade :—

The suspension by the United Kingdom of the gold standard and the linking of the rupee to sterling at the existing ratio of 1s. 6d. should act as a powerful stimulus to India's exports to countries which are still on the gold standard, among which are some of her principal customers, *e.g.*, the United States, Germany, France and Italy. Conversely, the depreciation of the sterling and rupee exchange now enables United Kingdom exporters to quote rupee prices which are below those ruling in the case of gold countries, notably Germany and the United States, who are among our keenest rivals in the Indian market. Other things being equal, therefore, there should be a considerable advance in price of the country's principal agricultural products which will increase the purchasing power of the people and will be reflected in a greater demand for imported goods. It is to be hoped that the United Kingdom manufacturer, by reason of his advantage in exchange, will do all that lies in his power to secure an increased proportion of this trade.

The supplementary budget, introduced on September 30th, 1931, with its provisions for retrenchment, the imposition of certain new import duties and of an all-round surcharge of one-quarter on existing import duties and excise, while acting as a further temporary restriction on the import trade, should, in the long run, redound to India's advantage by demonstrating to the world that the Government of India is determined to balance the budget and adhere to the strictest financial principles. The ultimate effect should be to restore confidence in Indian securities and to convince the world of the inherent soundness of the country's financial position.

Once again I have to acknowledge my indebtedness to the officials of the Commerce, Industries and Finance Departments of the Government of India for their unfailing courtesy and assistance during the year. Special thanks are due to the Director-General of Commercial Intelligence and Statistics and his staff who have prepared the special tables embodied in the report, to the Chief Controller of the Indian Stores Department and to the Collectors of Customs for their valuable help and co-operation which have always been so willingly rendered. I should also like to record my appreciation of the numerous memoranda which have been contributed by officers in charge of important works throughout the country and which have, in most cases, been incorporated with due acknowledgments in the report.

I have the honour to be, Sir,

Your most obedient servant,

THOMAS M. AINSCOUGH,

H.M. Senior Trade Commissioner in India.

PREFATORY TABLES.

Note.—The author desires to express his indebtedness to the Director-General of Commercial Intelligence and Statistics for the particulars given in these tables.

1.—TRADE DISTRIBUTION:—PRINCIPAL ARTICLES.

TABLE SHOWING VARIATIONS IN THE SHARES OF THE PRINCIPAL ARTICLES IN THE IMPORT AND EXPORT TRADE OF BRITISH INDIA DURING THE LAST THREE YEARS, AS COMPARED WITH AVERAGES OF THE PRE-WAR AND WAR PERIODS.

IMPORTS (*in percentages*).

(Sea borne: exclusive of treasure and of imports on Government account.)

	1909-14 Average	1914-19 Average	1928-29	1929-30	1930-31
Cotton manufactures ...	36	35	25	25	15
Iron and steel	7	6	8	7	7
Machinery	4	4	7	8	9
Sugar	9	10	6	6	7
Hardware	2	2	2	2	2
Mineral oil	3	3	4	5	6
Silk	3	2	2	1	1
Other articles	36	38	46	46	53

EXPORTS (*in percentages*).

(Sea borne: exclusive of treasure and of exports on Government account.)

	1909-14 Average	1914-19 Average	1928-29	1929-30	1930-31
Jute, raw and manufactures	19	25	27	26	20
Cotton, raw and manufactures	15	16	23	23	24
Food grains	21	17	10	11	14
Seeds	11	6	9	9	8
Tea	6	8	8	8	11
Hides and skins	7	8	3	3	2
Other articles	21	20	20	20	21

II.—TRADE DISTRIBUTION: PRINCIPAL COUNTRIES.

TABLE SHOWING VARIATIONS IN THE SHARE OF THE PRINCIPAL COUNTRIES IN THE IMPORT AND EXPORT TRADE OF BRITISH INDIA DURING THE LAST THREE YEARS, AS COMPARED WITH AVERAGES OF THE PRE-WAR AND WAR PERIODS.

IMPORTS (*in percentages*).

(Sea borne: exclusive of treasure and of imports on Government account.)

	1909-14 Average	1914-19 Average	1928-29	1929-30	1930-31
United Kingdom	63	56	45	43	37
Other parts of the British Empire	7	9	9	9	9
United States	3	7	7	7	9
Japan	2	10	7	10	9
Java	6	8	7	6	6
Germany	6	1	6	7	7
Other foreign countries ...	13	9	19	18	23

Note.—Imports from Germany during the quinquennium, 1914-19, consisted mostly of receipts in the early part of the official year 1914-15, and the residue of cargoes of prize vessels imported during the war period.

EXPORTS* (*in percentages*).

(Sea borne: exclusive of treasure and of exports on Government account.)

	1909-14 Average	1914-19 Average	1928-29	1929-30	1930-31
United Kingdom	25	31	21	22	24
Other parts of the British Empire	16	21	14	14	16
United States	8	12	12	12	9
Japan	8	11	10	10	11
France	7	4	5	5	5
Germany	10	1	9	8	6
Other foreign countries ...	26	20	29	29	29

Note.—Exports to Germany during the quinquennium, 1914-19, were confined to the early part of the official year 1914-15.

*Including re-exports.

COMMERCIAL SUMMARY.

		Sq. miles.
Area.—		
	British India	1,094,300
	Native States	711,032
		1,805,332
Population Census of 1931.—		
	British India	271,749,312
	Native States	81,237,564
		352,986,876

Language (Commercial use of English, etc.).—English.

Monetary unit(s).—
3 pie = 1 pice.
4 pice = 1 anna.
16 annas = 1 rupee.
1 lakh = Rs. 1,00,000 } *e.g.*, Rs. 1,45,67,200 = 1 crore, 45 lakhs, 67,200 rupees.
1 crore = 100 lakhs }

Rate of Exchange (pre-war and current average quotations).—

Pre-war	1s. 4d.
Current, June 30th, 1931	1s. 6d.

Index Numbers—July, 1914 = 100.

Wholesale prices, Bombay	June, 1931 = 108.
Retail prices (food), Bombay	June, 1931 = 121.
Cost of living (working class), Bombay ...	June, 1931 = 109.

Principal Weights and Measures (other than ordinary metric or British) with British equivalents.—Weights and measures in India vary not only from district to district but also for different commodities within the same district, and though the railways have given a lead to the adoption of a uniform system, the country is so vast that the differences are likely to persist for many years to come. The principal units in all the scales of weights are the maund, seer and the tola, and the standard weights for each of these are 82·28 lbs., 2,057 lbs. and 180 grains troy. The tola is the same weight as the rupee. In addition to these weights, there is the viss of 3·60 lbs. or 140 tolas and the candy of 500 to 840 lbs. It is not necessary for the purposes of this volume to detail any variation of the weight of the maund, except those which enter into the export trade. It will be sufficient to say that in any particular city there are probably as many different maunds as there are articles to weigh. The only varieties which need be considered in connection with the foreign trade are the Bengal or railway maund already specified, the factory maund of 74 lbs. 10 ozs. 11 drs., the Bombay maund of 28 lbs. and the Madras maund of 25 lbs. In October, 1913, the Government appointed a Committee to inquire into the whole question, and their majority report, which was presented in the following year, recommended the extension of the railway system based on the 180 grains tola, while the minority report advocated the adoption of the metric system. The views of the Provincial Governments on these reports were obtained and the Government of India in their resolution dated the 3rd January, 1922, declared themselves in favour of the ultimate adoption in India, excluding Burma, of a uniform system of weights based on the scale now in use on the railways. It has been decided that no new measures prescribing all-India measures of weight or capacity should be introduced at present but that the Local Governments should take such executive action as they can to educate public opinion in favour of the standard maund and seer.

In the table below an attempt has been made to present within a small compass the principal weights and measures employed in the Indian export trade.

Principal weights and measures in use in the export trade.—

Name of Unit. General.	British Imperial Value.
Tola	180 grains troy.
Seer (Standard or Railway or Indian) ...	2,057 lbs.
Seer (Factory)	1 lb. 13·5 oz.
Viss	3·60 lbs.
Maund (Standard or 40 seers Railway or Indian)	82 lbs. 4 oz. 9 dr.
Maund (Factory)	74 lbs. 10 oz. 11 dr.

Note.—For local variations consult " Handbook of Commercial Information for India " by C. W. E. Cotton, C.I.E., I.C.S., 2nd Edition, 1924.

Total Imports—1*st April*, 1930, *to* 31*st March*, 1931.

	Rs.
Merchandise	1,64,82,54,520
Government Stores	8,26,89,069
Treasure	26,86,48.373
Total	1,99,95,91,962

Principal Imports.—Cotton manufactures, machinery, sugar, oils, iron and steel.

	Rs.
Imports of merchandise from United Kingdom	61,25,07,686
,, ,, ,, United States ...	15,15,29,633
,, ,, ,, Japan	14,52,92,661
,, ,, ,, Germany... ...	12,41,46,381
,, ,, ,, Java	10,34,07,470

Total Exports—(*Indian merchandise*)—1*st April*, 1930, *to* 31*st March*, 1931. Rs.220,45,52,676.

Principal Exports—Cotton, jute, grain, pulse, tea and seeds.

	Rs.
Exports of Indian merchandise to United Kingdom	51,84,89,044
,, ,, ,, Japan ...	23,76,34,306
,, ,, ,, United States	20,61,34,287
,, ,, ,, Germany ...	14,05,86,627

Railway mileage.—31st March, 1930.

Railways owned by the State	44,473
Other railways	12,002
Total route mileage opened for traffic	56,475

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REPORT on the CONDITIONS and PROSPECTS of BRITISH TRADE in INDIA 1930-1931.

CHAPTER I.

GENERAL REVIEW OF THE PERIOD.

India was one of the last of the great producing countries to feel the full force of the world-wide economic storm, but the year 1930/31 will long be remembered as a period of acute commercial and industrial depression which was almost unparalleled in its intensity and reactions, and which is being continued, without any sign of improvement, during the present fiscal year. Notwithstanding the fact that the monsoon was a favourable one and that almost all the principal crops showed an increased outturn over the previous year, the world-wide fall in prices affected most severely those countries whose economic activities are mainly directed to the production of primary agricultural products. India was, therefore, placed in the paradoxical position of having large quantities of surplus exportable crops, which could not be exported except at a heavy loss owing to the low level of prices in all markets and general lack of demand.

The following table from the Review of the Trade of India shows the index numbers of wholesale prices in India, the United Kingdom, the United States, Canada, Australia and Japan :—

	India, Calcutta (July, 1914= 100)	United Kingdom (1913= 100)	United States (1926= 100)	Canada (1926= 100)	Australia (1911= 1,000)	Japan (October 1900= 100)
1929						
September...	143	135·8	97·5	97·3	1,858	217·5
October ...	140	136·1	96·3	96·7	1,832	216·2
November ...	137	134·0	94·4	95·8	1,804	211·1
December ...	134	132·5	94·2	96·2	1,760	205·0
1930						
January ...	131	131·0	93·4	95·6	1,719	201·4
February ...	126	127·8	92·1	94·0	1,674	199·8
March ...	125	124·5	90·8	91·9	1,647	195·9
April ...	123	123·7	90·7	91·7	1,662	192·8
May ...	121	122·0	89·1	89·9	1,683	189·4
June ...	116	120·7	86·8	88·0	1,657	181·2
July ...	115	119·2	84·0	85·8	1,644	176·6
August ...	114	117·8	84·0	84·1	1,620	175·6
September...	111	115·5	84·2	82·5	1,532	171·5
October ...	107	113·0	82·6	81·4	1,479	164·6
November ...	103	112·0	80·4	79·8	1,437	162·2
December ...	100	108·9	78·4	77·8	1,399	160·8
1931						
January ...	98	106·9	77·0	76·7	1,454	158·5
February ...	99	106·2	75·5	76·0	1,448	158·0
March ...	100	105·9	74·5	75·1	1,456	158·3
April ...	98	105·7	73·3	74·5	1,447	157·9
May ...	97	104·4	71·3	73·0	1,440	154·0
June ...	93	103·2	70·0	72·2	1,425	150·7
July ...	93	102·2	70·0	71·7	1,428	152·8

It will be remarked that the fall in prices is most severe in the case of countries whose principal products consist of primary articles such as foodstuffs and raw materials. For example the fall in the Calcutta wholesale price index was 32 per cent. and in that of Japan over 27 per cent., whereas the corresponding figures for the United Kingdom and the United States were 22 and 24 per cent. respectively. The greater fall in the case of raw materials than in the case of manufactured articles is clearly shown in the next table (also taken from the Review of the Trade of India) which gives the respective index numbers of exported and imported articles in Calcutta during the same period :—

Calcutta Index Number Series (1914).

	Exported articles.	Imported articles.
1929		
September	133	150
October	130	149
November	125	146
December	123	143
1930		
January	120	141
February	113	140
March	111	140
April	110	140
May	108	139
June	101	136
July	98	135
August	96	136
September	93	135
October	90	131
November	87	127
December	85	125
Fall in December, 1930, on September, 1929	36 per cent.	17 per cent.
1931		
January	82	124
February	84	125
March	84	126
Fall in March, 1931, as compared with September, 1929	37 per cent.	16 per cent.

The fall, between September, 1929, and March, 1931, in the prices of articles which India exports was 37 per cent. whereas the fall in the prices of the main articles of import during the same period was not more than 16 per cent. As the Hon. the Finance Member stated in introducing the budget on February 28th, 1931—" India may perhaps be said to be going through the worst time now. She has felt the severity of the fall in the case of what she has to sell, but has not obtained a corresponding advantage of the fall in prices of what she has to buy." The effect on the import trade of this disparity in the index numbers will be dealt with later.

During the year ended March 31st, 1931, the value of India's total imports of merchandise amounted to Rs.165 crores showing a fall, as compared with 1929/30, of Rs.76 crores or 31 per cent. The total exports, including re-exports, amounted to Rs.225 crores, showing a fall of Rs.93 crores or 29 per cent. The grand total of imports, exports and re-exports amounted to Rs.390 crores, showing a decrease of Rs.169 crores or 30 per cent. It is noteworthy that the figures for imports, exports and total trade in merchandise are below those recorded for the year 1913/14.

India's Export Trade.—1930/31.—The decline of Rs.93 crores (29 per cent.) in the export trade is entirely attributable to the fall in prices of India's staple export commodities. In some instances the quantity exported during the year varied only slightly

from the quantity exported in 1929/30, but the fall in value has been almost unprecedented. If the exports during the years 1930/31 and 1929/30 are expressed in terms of the average values of the year 1913/14, it will be found that the volume of exports declined by only 11 per cent. as compared with 1929/30, while the volume of imports declined by 17 per cent. The following table compiled by the Director-General of Commercial Intelligence, giving the price index numbers of the principal groups of commodities, provides the clue to the situation :—

Articles.	Index numbers (July, 1914=100).				Percentage decline on the basis of September, 1929.		
	September, 1929	March, 1930	December, 1930	March, 1931	March, 1930	December, 1930	March, 1931
Cereals—							
Rice	124	104	93	81	16	25	35
Wheat ...	135	106	72	72	21	47	47
Tea	129	121	115	114	6	11	12
Oilseeds ...	175	142	99	90	19	43	49
Jute, raw ...	90	72	45	45	20	50	50
Cotton, raw ...	146	107	69	93	27	53	36
Hides and skins	109	100	79	80	8	28	27
Jute manufactures ...	122	89	74	80	27	39	34
Cotton manufactures ...	161	149	125	130	7	22	19
Metals ...	130	117	109	110	10	16	15
Sugar ...	164	154	128	133	6	22	19
All commodities (including pulses, etc.) ...	143	125	101	100	13	29	30

Reviewing the export trade of the year, the Director-General states that :—

" The outstanding factor was the slump in the jute trade which was responsible for a decline of 378,000 tons in the total weight and of Rs.34 crores in the value of raw and manufactured jute exported. Shipments of raw jute declined from 4,519,000 bales to 3,470,000 bales in quantity and from Rs.27 crores to Rs.13 crores in value. Despatches of gunny bags receded from 522 millions valued at Rs.22 crores to 434 millions valued at Rs.15 crores and those of gunny cloth from 1,651 million yards valued at Rs.30 crores to 1,271 million yards valued at Rs.17 crores. There was a decline of Rs.21 crores under cotton, raw and manufactured. Exports of raw cotton fell off by 144,000 bales to 3,926,000 bales, mainly as a result of the depressed condition of the cotton industry of the world, but the lower prices for cotton all the world over made the slump conditions more pronounced on the value side, which showed a decline from Rs.65 crores to Rs.46 crores. Twist and yarn constituted, as usual in recent years, a minor item in the cotton export trade, but there also the year's despatches declined from 24·6 million lbs. to 23·5 million lbs. Exports of cotton piecegoods also declined from 133 million yards valued at Rs.4,67 lakhs to 98 million yards valued at Rs.3,32 lakhs. Under food grains, the value of the shipments declined from Rs.34,79 lakhs to Rs.29,88 lakhs, although on the quantity side there was actually a gain from 2,510,000 tons to 2,614,000 tons. This improvement was wholly due to a partial recovery in the wheat export trade. Exports of wheat amounted to

196,500 tons, which compared very favourably with the low figure of 13,000 tons recorded in 1929-30. Shipments of rice declined in volume from 2,326,000 to 2,279,090 tons, whereas the value declined more heavily by Rs.5,54 lakhs to Rs.25,97 lakhs owing to the lower prices ruling. Shipments of tea fell by 20·4 million lbs. to 356·2 million lbs. and by Rs.2,45 lakhs to Rs.23,56 lakhs in value. Shipments of oilseeds amounted to 1,037,000 tons valued at Rs.17,86 lakhs. This meant a decline of 13 per cent. in quantity and of 33 per cent. in value in comparison with the exports of the preceding year. The decline was mainly due to a falling off in exports of groundnuts from 714,000 tons to 601,000 tons. Linseed alone among the different kinds of oilseeds showed an increase of 9,000 tons, but, in spite of this gain, the value declined by Rs.31 lakhs to Rs.5,41 lakhs. There was a decrease in shipments of hides and skins from 74,100 tons valued at Rs.16,03 lakhs to 63,000 tons valued at Rs.11,74 lakhs. Exports of lac amounted to 547,000 cwts, valued at Rs.3,14 lakhs, which represented a decline of 18 per cent. in quantity and of 55 per cent. in value."

Indian Crop Review and Present Outlook—The present position (August, 1931), and future outlook were clearly summarised by the Chairman of the Imperial Bank of India in his annual address on August 17th in the following terms :—

" **The Burma Rice Crop** for export in 1931 was estimated at the record figure of 3½ million tons. Owing to the heavy decline in values which set in from last October and continued throughout the first half of this year and owing to the outbreak of the " Rebellion " which has interfered with the normal course of business over a very wide area almost exclusively composed of paddy land, exports were curtailed and by June 30th less than 50 per cent. of the estimated tonnage had actually been shipped. In spite of the comparatively low cost of production of Burma rice present prices leave no margin to the cultivator. Price prospects, however, are better owing to less favourable reports of the Japanese rice crop.

" **The Jute Crop** was a large one estimated at 112¼ lakhs of bales. Prices fell sharply from July. Exports decreased by 24 per cent. and consumption by local mills fell by 28 per cent. New crop acreage estimate indicates an area of 19 lakhs of acres against 35 lakhs of acres in 1930. Prospects do not appear favourable for any appreciable improvements in prices.

" **The Wheat Crop** which promised well both in quantity and quality was marketed under the same depressing conditions intensified by forced sales from Australia and Russia. In spite of assistance in the shape of reduced railway freights to the ports and the passing of the Wheat Import Bill by the Legislature, prices fell nearly 50 per cent. and the demand for finance was greatly curtailed. With large surpluses in most wheat producing countries of the world prospects for the coming season's crop are not hopeful in spite of the probability of some diminution in acreage.

" **Tea** escaped the almost universal collapse in prices until early this year when, however, prices declined sharply in spite of an estimated decrease of some 5¼ million pounds in outturn up to June, 1931, as compared with the corresponding period of 1930. In spite of the restriction scheme applied in the three chief producing countries of India, Ceylon and Java, which resulted in a decreased world outturn of 59 million pounds in 1930 as compared with 1929, stocks have accumulated with alarming rapidity and the outlook is not promising. Prices dropped from 8½ annas per lb. at the opening of the current season to 6⅛ annas at the end of June last.

" **Cotton.**—The statistical information available for the Indian cotton crop is somewhat conflicting and owing to the various methods adopted by Government Associations and private parties of presenting their figures, it is difficult to obtain an accurate picture. With this reservation the 1930-31

crop outturn is estimated at some 58 lakhs of bales which, with a carryover of some 6 lakhs of bales from the previous season, gives a total visible supply of 64 lakhs of bales for 1930-31. Exports from September to June inclusive total 32½ lakhs bales of which about 50 per cent. was taken by Japan, and mill consumption including domestic consumption may be taken at 26 lakhs bales for the whole season. Imports of cotton from abroad totalled just over 4 lakhs of bales from September 1st to June 30th amongst which figured a few hundred bales from Russia, a new source of supply. Prices fell heavily during the latter part of 1930, but rallied in the early months of 1931 only to slump again heavily since June.

" A careful investigation carried out by the Bank into the cost of growing the coming crop in relation to current market prices revealed the fact that the bulk of the crop was being put down at prices which left no profit to the cultivator.

" The stock position, however, is healthy. The Indian-American parity has narrowed and resistance by Indian cotton to the price decline is impressive.

" The percentage fall in price of the chief crops of India during the year under review has been as follows :—

	Per cent.
Cotton (Broach)	16
Jute (Raw)	47
Paddy (Rangoon)	58
Rice (Big Mill Specials)	57
Tea (Calcutta)	43
Wheat	46
Groundnuts	40

Since June certain prices, notably cotton prices, have declined appreciably further, and although monsoon conditions to date are favourable, crops are being laid down for the most part at rates which leave no margin of profit to the growers.

The Calcutta Index Number of wholesale prices (all commodities) fell from 116 in June, 1930, to 93 in June, 1931—a fall of 23 points during the year. A further factor which has materially contributed to the present distress amongst the agricultural population is the continued heavy fall in the price of silver from 17d. to 13d.

India's Import Trade, 1930/31.—I have laid particular stress this year upon the conditions in the export trade resulting from the exceptional fall in raw material prices because they have had a direct bearing upon the course of the import trade, which, as we have seen, was reduced by Rs.76 crores or 31 per cent., *i.e.*, a 2 per cent. greater diminution than in the case of the export trade. It is remarkable that the decline, measured by values, in each case, should be so close. The percentage reduction in the *volume* of imports however, if it could be measured on a common basis, would be found to be much greater than the percentage reduction in the case of *values* of imports. The following instructive table, abstracted from the Review of Trade, shows the values of both imports and exports on the basis of the declared values in 1913/14 :—

	1913 -14	1923 -24	1924 -25	1925 -26	1926 -27	1927 -28	1928 -29	1929 -30	1930 -31
				(Crores of Rupees)					
Imports	183	120	137	143	156	181	190	189	157
Exports	244	240	250	246	228	248	260	263	235
Total trade in merchandise excluding re-exports	427	360	387	389	384	429	450	452	392

The Director-General of Commercial Intelligence has also compiled the following statement of index numbers illustrating the extent to which the general level of prices for imported articles adjusted itself to the general level of prices for India's exported commodities. The figures have been obtained by comparing the values of imports and exports, as shown in the preceding table, with the values actually recorded for each :—

	1913 -14	1923 -24	1924 -25	1925 -26	1926 -27	1927 -28	1928 -29	1929 -30	1930 -31
				(Crores of Rupees)					
Imports	100	190	180	158	148	136	133	128	105
Exports	100	145	154	152	132	130	127	118	94

It will be observed that the margin between the two gradually narrowed (with the exception of the year 1926/27) until 1928/29 when it widened to 10 points and, during the past year, it widened further to 11 points.

The phenomenal reduction by over one-third in the volume of India's imports may be attributed to two main factors, firstly, the heavy fall in the purchasing power of the Indian consumer as a result of the drop in the prices obtainable for his produce and, secondly, the political movement involving both the boycott of United Kingdom goods, and the closing of certain markets for lengthy periods, violent picketting, and a general state of disturbance entailing severe losses to traders and widespread lack of confidence.

Reduced Purchasing Power of the Indian Consumer.—Of the people of India, fully 75 per cent. derive their livelihood from the produce of the land and even in normal times have only a small margin, after providing for their food and certain fixed charges such as rent, water rates, interest on money borrowed from the " Bania," &c., to expend on imported articles. During the past year the income received from the sale of the exportable surplus fell by no less than Rs.93 crores (£70 millions sterling) and this heavy reduction was ultimately borne by the patient cultivator of Bengal (so far as the Rs.34 crore drop in jute and jute products

is concerned) by the ryots of the Central Provinces, Bombay Presidency, Madras and the Punjab (so far as the drop of Rs.18¾ crores in raw cotton is concerned), by the peasants of Burma (as regards the drop of Rs.5½ crores in rice), the peasants of Madras, the Bombay Presidency, the Central Provinces and Upper India (as regards the drop of Rs.9 crores in oilseeds), by the ryots of the United Provinces, the Punjab and Madras (as regards the drop of Rs.2½ crores in hides and skins) and by the peasants of N.W. India (so far as concerns the drop of Rs.5 crores in grain, pulse and flour). In many cases the income of the cultivator was reduced to one-half, directly on account of the fall in price of his produce.

On the other hand, we have seen that the price index of imported articles only fell by 16 per cent. as compared with 37 per cent. in the case of exported commodities. Consequently the consumer has not been able to secure a corresponding advantage in the fall in prices of his requirements of such items as cotton piecegoods, hardware, metals, kerosene and tobacco, &c., &c. His reduced available balance, therefore, could only purchase the smallest possible quantity of imported goods. The result has been that the consumer has, in the first place, economised as far as possible, e.g., by mending his torn dhootie and allowing his youngest children to wear the minimum of clothing, secondly, he has confined his purchases to the cheaper forms of country-made articles and substituted handloom or Indian mill goods for the finer Lancashire product, and—where imported goods only were available for his needs—he has substituted the cheaper Japanese cloth, Continental metals and hardware, and Russian kerosene for the higher-priced goods of British origin. Perhaps the most striking example of this reduction in purchasing power is the decline by 65,000 tons in the imports of galvanised steel sheets into Calcutta, which is directly attributable to the depression in the jute districts of Eastern Bengal.

The Political Disturbance.—It is practically impossible to assess the precise extent to which the decline in the import trade is attributable to political movements. Throughout almost the whole of the year the foreign cloth market of Bombay was closed and that of Calcutta was moribund. Delhi, Cawnpore and Amritsar were also centres of strong Congress propaganda. Karachi, being remote from the centre of the conflict, was only affected at a later stage, but eventually suffered like the rest. Southern India is the only part of the peninsula where the boycott of United Kingdom goods made relatively little headway and consequently the trade of Madras has suffered least. Burma, of course, was free from its effects. Although the boycott of foreign cloth was ostensibly directed against all countries, imports from Japan continued to arrive and were cleared into consumption, largely on account of their attractive prices. The movement against United Kingdom

textiles was most severe. Forward business was practically impossible in most markets and stocks were cleared with the greatest difficulty. There is no doubt whatever that a considerable part of the fall in the imports of United Kingdom cotton yarns and piecegoods, amounting approximately to Rs.23 crores is directly due to the boycott. The boycott movement was similarly very active in the case of cigarettes, and extended also to drugs, soap, cycles, tyres, bazaar metals and hardware and certain electrical accessories. It is in all these cases difficult to assess how much of the decline was due to political propaganda and how much to the economic depression, which would have had a severely restrictive effect quite apart from any political agitation. In large groups of imported articles such as machinery, certain types of iron and steel, metals and hardware, instruments and appliances, motor vehicles, &c., &c., India is not able to substitute for imports her own productions, and in these cases the boycott was never enforced. The indirect effects of this subversive political campaign such as the closing of markets, general suspension of business activity, tightness of money and widespread lack of confidence, were probably more pernicious and lasting than any other. In this connection I cannot do better than quote the words of the Hon. the Finance Member in his budget speech on February 28th, 1931. Sir George Schuster said :—

" So far as the total volume of India's external trade is concerned, the main course of events has been determined by world economic conditions. Exports have kept up well in volume, and the total imports have not declined to a degree appreciably out of proportion to the drop in the value of the exports. On the other hand, certain classes of imports have shown major variations from the normal—notably cigarettes and cotton piecegoods, but, as to the latter, it is necessary to remember that a part of the variation might have been expected as a result of the higher import duties imposed last year.

" On the other hand, although the course of external trade may have been mainly governed by economic causes, internal trade has suffered disastrously as a result of political disturbances. Unnecessary losses to private traders must have been very great, while enormous sums of money must have been diverted from productive purposes. This kind of effect is seen in Provincial budgets, but there must be much more which does not appear in any public accounts.

" Lastly, and above all, the most damaging effects have been caused in what I may describe as the region of Finance. The implications of the movement have weakened confidence in India as a field for investment both at home and abroad, and this had led to a decline in the price of Indian securities, both Government and private, to a lack of credit for traders and of capital for new enterprise, and to a steady export of capital from the country. This has meant increased expenditure on loans for Government and has forced Government to take measures to protect the position which have resulted in high money rates, with a consequent increase in the difficulties of traders in these very difficult times.

" I have stated the case in the preceding sentences with studied moderation, but I must guard against that moderation being misunderstood. The country has, it is true, survived the past year without irreparable disaster. But the reserves and credit of all—individuals and public authorities alike—have been seriously weakened, and any continuance of internal disorders is a matter which all who have the true interests of India at heart must view with

the gravest possible concern. It might, in fact, mean that India, on the day when she should be inaugurating her new constitution with bright hopes of success, would find herself, instead, struggling desperately for mere existence in a morass of economic troubles."

The Outlook in the Import Trade.—The outlook in the import trade is clouded by the ever deepening shadow of agricultural depression and the lack of any sign of improvement in the general economic situation. Prices of India's staple products still continue to fall and the cultivators, although fortunately they have sufficient foodstuffs to maintain themselves, are sinking further and further under their burden of debt. The agrarian situation is becoming very serious in most provinces, but particularly in the United Provinces and the Punjab. Although this year's monsoon has so far produced abundant rains, crops are being laid down at rates which leave no margin of profit to the grower. Conditions among the ryots are becoming desperate and until world-wide prices for agricultural produce improve and their purchasing power is thereby restored, there is little hope for any material revival in the imports of such items as cotton piecegoods, kerosene oil, certain metals, &c., which are widely consumed in country districts.

Conditions in the towns are almost equally depressed. Indian industries, with very few exceptions, have experienced the full effects of the slump. Production has been curtailed, the labour force has been reduced and unemployment is becoming a serious factor. Although the cotton mill industry received a decided stimulous owing to the combined effects of the increased tariff and the Swadeshi movement, the progress is slow and there are signs that the economic situation is reducing the demand even for country-made goods. Importers, dealers and merchants throughout the country have made such heavy losses in the past year or two and are still witnessing such steady depreciation in the values of the stocks they hold, that they are not disposed to enter into any forward transactions while the future is so uncertain. This complete lack of confidence affects both Indian and European traders alike.

The political situation, too, still causes great nervousness among traders in imported goods. Although the signature of the Delhi Pact in March resulted in the cessation of violent picketting and the position at the ports has undoubtedly improved, boycott activities have now been transferred to the upcountry consuming districts, where the movement is still active and where it is reported that every form of " peaceful " persuasion is being adopted against people trading in or wearing cloth of foreign manufacture. The clearances of imported goods for such storm centres as Gujarat and Kathiawar are still negligible. The movement is being kept alive by the provocative utterances of responsible Congress leaders who give the impression that the present is a period of " Truce " and that recourse may again be had to violent activities. Moreover, there is widespread fear in the bazaars that if the

Round Table Conference were to break down, a general revival of civil disobedience might ensue. In these circumstances, it is not surprising that not only Indian dealers but also many European importers are loath to enter into any fresh commitments until the future course of events, both political and economic, may be forecasted with greater certainty. It has been truly stated that " the formal withdrawal of a boycott is only partly helpful. It must be replaced by confidence that merits of no reservations."

So far as the trade in cotton textiles is concerned, readers interested should refer to the forecast which is made on pages 71-3. Notwithstanding the fact that stocks of imported goods at the ports are very light, that the country districts are practically bare of supplies and that present Lancashire prices would appear to be on a relatively safe level on which to operate, I do not anticipate any marked improvement in the near future beyond the replacement of types of goods which are in short supply and limited purchases to keep marks and styles on the market.

The valuable trade in machinery and plant and general engineering supplies, while not being affected so much by the political movement, is being severely restricted by the financial stringency and consequent curtailment of all Government expenditure on capital works such as railway construction and renewals, irrigation projects, and public works developments, *e.g.*, roads, bridges, buildings, &c. The railway capital programme is outlined on page 44 and shows further diminution. A study of the position of the more important irrigation, harbour, hydro-electric and other public works which is given in Chapter V, reveals the fact that the large schemes, which have provided such a valuable flow of orders for plant during the last few years, are now approaching completion. Owing to the desire of the Central and Provincial Governments to restrict their capital programmes on account of budget deficits, the high rate of interest and other " ways and means " difficulties, it is unlikely that funds will be made available for further large scale projects for some time to come. The prevailing depression has also imposed a check on the promotion of public utility companies for the supply of electric light and power, gas, water, &c., and on the extension of existing works. The increase in the number of cotton mills in Ahmedabad will provide a market for textile machinery and the general improvement in the cotton mill industry should stimulate renewals and replacements of textile plant. The heavy depression which has settled on other industries such as the jute, woollen, oil and flour mills; the coal and manganese mines, as well as the iron and steel and engineering works will inevitably reduce the demand for machinery and millwork for a considerable period.

In the iron and steel trades, competition from the Tata Iron and Steel Works is likely to restrict imports for some time. The Company is now in a position to roll most of the sections in regular

demand in the market and is pursuing a more aggressive selling policy, which has met with considerable success during the past year. The plant is steadily being extended and modernised and there is likely to be a material increase in the production of galvanised sheets. Although, as I have frequently maintained, the Indian market is sufficiently important to provide a valuable field for the products of both the Indian and the United Kingdom works, the tendency, during times of depression, such as the present, is for the local industry to improve its position at the expense of the imports.

All imported goods will be adversely affected by the all-round surcharges in the rates of import duty which were imposed by the last budget for revenue purposes. Quite apart from the existing protective duties on such items as iron and steel, certain railway track materials, paper, &c., &c., the general level of the revenue tariff is now pitched at rates which, in practice, afforded a considerable measure of protection to Indian industries and give added stimulus to that " Swadeshi " movement, which has been such a feature of the last few years, and which, in some quarters, has become an obsession, obliterating all considerations of value for money.

General Position of British Trade in India.—The following table, compiled by the Director of Statistics, clearly shows the percentage shares of the United Kingdom, the British Empire as a whole, and the principal foreign countries in the trade of India during the fiscal year 1930/31 as compared with the previous year and the average of the last five complete pre-war years, 1909/10 to 1913/14 :—

	Imports.			Exports, including re-exports.			Total Trade.		
	Pre-war average.	1929-30	1930-31	Pre-war average.	1929-30	1930-31	Pre-war average.	1929-30	1930-31
	Share per cent.	Share per cent.	Share per cent.	Share per cent.	Share per cent.	Share per cent.	Share per cent.	Share per cent.	Share per cent.
United Kingdom	63	43	37	25	22	24	40	31	30
British Possessions	7	9	9	16	14	16	12	12	12
TOTAL BRITISH EMPIRE ...	70	52	46	41	36	40	52	43	42
TOTAL FOREIGN COUNTRIES	30	48	54	59	64	60	48	57	58
Principal Countries.									
BRITISH EMPIRE—									
United Kingdom	62·8	42·8	37·2	25·1	21·9	24·0	40·0	30·9	29·6
Ceylon	0·5	0·7	0·9	3·7	4·2	5·0	2·4	2·7	3·3
Straits Settlements	2·1	2·6	2·4	3·4	2·5	2·8	2·9	2·5	2·6
Australia	0·7	2·3	1·5	1·4	1·8	2·0	1·1	2·0	1·8
Hongkong	0·7	0·3	0·5	4·1	1·0	0·7	2·7	0·7	0·6
Other British Possessions ...	2·9	3·0	3·6	3·4	4·6	5·1	3·2	3·7	4·5
TOTAL BRITISH EMPIRE	69·7	51·7	46·1	41·1	36·0	39·6	52·3	42·5	42·4
Foreign Countries.									
Japan	2·5	9·8	8·8	7·5	10·2	10·6	5·5	10·0	9·8
United States	3·1	7·3	9·2	7·5	11·6	9·4	5·8	10·1	9·3
Java	6·4	5·7	6·3	1·3	1·3	1·2	3·3	3·2	3·3
France	1·5	1·9	1·8	6·6	5·3	5·0	4·6	3·8	3·6
Italy	1·0	2·8	2·7	3·2	3·6	3·5	2·3	3·3	3·2
China (exclusive of Hongkong and Macao)	1·1	1·7	2·0	3·9	4·1	5·9	2·8	3·1	4·3
Belgium	1·9	2·8	2·8	5·3	3·8	3·4	3·9	3·4	3·1
Germany	6·4	6·6	7·5	9·8	8·3	6·3	8·5	7·6	6·8
Other Foreign Countries	6·4	9·7	12·8	13·8	15·8	15·1	11·0	13·0	14·2
TOTAL FOREIGN COUNTRIES ...	30·3	48·3	53·9	58·9	64·0	60·4	47·7	57·5	57·6
TOTAL	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0

The decline in the total imports from the United Kingdom from Rs.103 crores to Rs.61 crores may be attributed to a combination of all the factors which have already been discussed. The decline in the percentage figure from 42·8 to 37·2, representing a drop of 5·6 per cent. in the United Kingdom's share of the import trade, is so abnormal that it can only be accounted for by the boycott of United Kingdom goods and their partial replacement by the products of other countries. I have, in these reports during the past twelve years, consistently called attention to the steady decline in the British percentage figure from its post-war peak of 61 in 1920/21 (a quite exceptional year) to 60 in 1922/23, 58 in 1923/24, 54 in 1924/25, 51 in 1925/26, 48 in 1926/27, 48 in 1927/28, 45 in 1928/29, and 43 in 1929/30. The past year, however, has witnessed a crisis in the trading relations of British exporters with Indian markets, which has in the textile trades temporarily dislocated many of the usual channels of distribution throughout the country, and the effects of which will be experienced for many years to come. The position is so serious as to warrant a detailed examination of the conditions obtaining in each of the trades principally affected. This will be found in Chapter II together with such conclusions as can be drawn from a most complex and baffling situation.

In the Appendices on pages 235 *et seq.* will be found a series of statistical tables, compiled by the Director-General of Commercial Intelligence and Statistics, which are designed to show the shares of all the leading countries in the trade of India, and, in addition, to provide an analysis of the trade in particular commodities so as to show the shares of the principal countries interested in each. Appendix I presents the total overseas trade of India in private merchandise in such a way as to indicate India's trade balances with the principal overseas countries. It will be noted that India's exports usually exceed her imports in the case of all countries with which she deals with the single exception of the United Kingdom. The phenomenal reduction in the imports from the United Kingdom in 1930/31, however, reduced the excess of imports from, over exports to, the United Kingdom to Rs.7 crores as compared with Rs.34 crores in 1929/30 and Rs.41 crores in 1928/29. This figure is the lowest recorded and it should also be observed that the balance of India's trade in merchandise with the rest of the British Empire including the United Kingdom, which is normally an adverse one, actually turned in favour of India to the extent of Rs.14 crores in 1930/31. It is a great potential source of weakness that the United Kingdom should normally take from India a much less value of goods than she exports to India. Apart from the working of economic laws there has, for many years, been a tendency all over the world for a country to purchase its imports from those countries which are the most important customers for its own produce. India's most important markets, apart from the

United Kingdom, are Japan, the United States, Germany, China, France and Italy and there is every likelihood that she will tend to increase her purchases from those countries.

Appendix II shows the position, both before the war and during the last two years, of the principal suppliers in some of the most important items of the import trade. It may be summarised in the following statement of the present percentages :—

Article.	United Kingdom	United States.	Germany.	Belgium.	Italy.	Japan.
Cotton manufactures	58·0	1·0	0·4	0·2	1·5	30·3
Iron and steel ...	52·3	4·6	6·9	24·9	—	—
Machinery ...	74·7	11·4	8·2	—	—	—
Hardware ...	36·4	12·5	29·9	0·9	—	5·8
Motor cars, motor cycles, &c. ...	23·7	48·3	1·5	0·4	4·5	0·2
Instruments and appliances ...	53·4	16·4	15·7	2·1	2·0	1·9
Chemicals ...	54·0	5·2	18·3	—	7·3	1·7
Paper	31·2	4·5	9·7	—	—	—

In Appendix III, Tables A—G, will be found statements showing the values of the principal articles imported from the United Kingdom, Italy, Belgium, Germany, Japan, the United States and France, over a series of years including the pre-war period. These show the nature of the competition which is being encountered and its varying intensity in the post-war period.

Foreign Competition.—The following statement shows the heavy fall in the value of the imports from our principal competitors together with their percentage share of the total imports :—

	Values of imports.		Share of total imports.	
	1929-30	1930-31	1929-30	1930-31
	Rs. (lakhs)	Rs. (lakhs)	Per cent.	Per cent.
Germany	15,79	12,41	6·6	7·5
Belgium	6,79	4,67	2·8	2·8
Italy	6,73	4,51	2·8	2·7
Japan	23,58	14,53	9·8	8·8
United States	17,66	15,15	7·3	9·2

German.—Although Germany was able to increase her proportion of the trade by just over 1 per cent., it will be found that, with the exception of dyestuffs and salt, all the principal articles of import registered considerable reductions. Even in the case of dyestuffs the quantities were reduced from 12·8 million lbs. to 11·9 million lbs. Imports of hardware fell by Rs.58 lakhs to Rs.108

lakhs, machinery by Rs.56 lakhs to Rs.1,18 lakhs. Iron and steel products by Rs.24 lakhs to Rs.75 lakhs and brass and copper by Rs.29 lakhs to Rs.1,27 lakhs. Considerable reductions are also shown under woollen manufactures, glass and glassware, paper, liquors, beet sugar and cotton manufactures. It may be stated, therefore, that so far from being in a position to take advantage of the boycott on United Kingdom goods to replace them with German articles, German traders only suffered in less degree than those of the United Kingdom.

Belgian.—The total imports of Belgian goods fell by Rs.2,12 lakhs to Rs.4,67 lakhs. As usual, the imports of Belgian iron and steel represented more than half the total trade, but these showed a decline from Rs.4,04 to Rs.2,71 lakhs. Cotton manufacturers, precious stones, artificial silk, glass and glassware and machinery were all reduced. It is always difficult to assess the true value of Belgian trade as considerable quantities of German, Dutch and French goods are shipped from Antwerp and appear in the returns as being of Belgian origin.

Italian.—Italy also has suffered severely from the depression in the Indian market. Total imports fell by Rs.2,22 lakhs to Rs.4,51 lakhs, the principal decreases being in coloured piecegoods (which shrank from 23 million yards valued at Rs.83 lakhs to 9 million yards valued at Rs.28 lakhs); silk, woollen and artificial silk piecegoods, rubber tyres and motor cars. On the other hand, arrivals of Italian artificial silk yarn advanced by over one million lbs. and by Rs.5 lakhs in value. Considerable quantities of German and Czechoslovak goods are shipped by Italian steamers from Genoa and Venice, some of which appear in the returns as being of Italian origin.

Japanese.—Imports from Japan have been seriously affected by the slump and declined by Rs.9,05 lakhs to Rs.14,53 lakhs. The imports of cotton manufactures alone fell from Rs.15,74 lakhs to Rs.7,66 lakhs, both grey and coloured goods being materially reduced. Bleached goods, on the other hand, again showed a noteworthy advance from 13,880,453 yards valued at Rs.33 lakhs to 28,105,352 yards valued at Rs.57 lakhs. The severe competition which United Kingdom merchants are experiencing from Japanese cotton goods is treated at length in Chapters II and VI where the remarkable further advance of 13 million yards in artificial silk fabrics is fully discussed. Apart from the textile group, which is directly competitive, reductions are noticeable in the case of glass and glassware, hardware, earthenware and porcelain, toys, brass products, camphor, haberdashery, &c., &c. The remarkable further increase in the imports of Japanese footwear is dealt with on page 208.

American.—Notwithstanding the fact that the United States has increased her percentage by 2 points, it cannot be said that

American goods have largely displaced United Kingdom products. Imports of articles from the United States have been reduced under every important heading with the exception of mineral oils, raw cotton, rubber tyres and wrought copper, but the total decline of Rs.2,54 lakhs was proportionately less than in the case of other competing countries. Imports of motor vehicles fell from Rs.4,45 to Rs.2,41 lakhs; machinery and millwork from Rs.1,75 to Rs. 1,64 lakhs (although imports of electrical machinery were higher by Rs.9 lakhs); cotton textiles showed a marked decline at Rs.64 lakhs, mostly in the case of fents. Shipments of hardware, aluminium, boots and shoes, provisions and apparel, were all reduced. Owing to the relatively low price of the American staple and the tendency towards finer spinning on the part of the Indian mills, imports of American cotton rose by 3,600 tons and Rs.63½ lakhs.

Imports from Soviet Russia.—One feature of the past year has been the increase in the imports from Russia proper from Rs.45½ lakhs to Rs.103¾ lakhs. These comprised Rs.56 lakhs worth of kerosene oil, Rs.45 lakhs of beet sugar, Rs.43,000 worth of tea chests and Rs.2½ lakhs of unenumerated articles. In addition, Rs. 121⅛ lakhs of kerosense oil were imported from Georgia and Rs.64⅜ lakhs from Azerbaijan. There is reason to believe that other goods of Russian origin were shipped via Hamburg. Small trial shipments of Russian alkali products were imported during the period and quoted at very low rates. It would seem probable that we shall see more of Russian products on the Indian market as the " Five Year Plan " progresses.

The Balance of Trade.—The Controller of the Currency in his informative and lucid report for 1930/31, on which I have very freely drawn for the ensuing comments, gives the following statement which compares India's visible balance of accounts during the year with the figures of the preceding two years and the averages of the last ten pre-war years ended 1913/14 and the first ten post-war years ended 1929/30. The detailed figures work up to a *plus* or *minus* balance (*plus* representing net export and *minus* representing net import) for each of the three main heads of classification, namely (1) private imports and exports of merchandise, (2) private imports and exports of treasure and (3) remittances through Government, leading up to a *plus* or *minus* total for the transactions as a whole.

	Average of 10 pre-war years ending 1913-14	Average of 10 years ending 1929-30	1928-29	1929-30	1930-31
		(In lakhs of rupees)			
Exports of Indian merchandise (private)	+1,94,67	+3,14,04	+3,30,13	+3,10,80	+2,20,46
Re-exports of Foreign merchandise (private)		+ 11,68	+ 7,83	+ 7,13	+ 5,14
Imports of Foreign merchandise (private) (*b*)	−1,22,93	−2,42,59	−2,51,49	−2,38,95	−1,63,62
Balance of Trade in Merchandise (private)	**+ 71,74**	**+ 83,13**	**+ 86,47**	**+ 78,98**	**+ 61,98**
Gold (private) (*a*)	− 20,87	− 24,04	− 21,20	− 14,22	− 12,75
Silver (private) (*a*)	− 7,67	− 15,49	− 13,04	− 11,89	− 11,65
Currency Notes (private) (*a*)	—	− 27	− 12	− 9	− 3
Balance of Transactions in Treasure (private) (*a*) ...	**− 28,54**	**− 39,80**	**− 34,36**	**− 26,20**	**− 24,43**
Total Visible Balance of Trade	**+ 43,20**	**+ 43,33**	**+ 52,11**	**+ 52,78**	**+ 37,55**
Council bills and telegraphic transfers paid in India, purchases of sterling from banks and firms in India and payments for sterling taken over in London from local bodies	− 38,47	− 26,00	− 41,02	− 20,39	− 7,26
Sterling transfers on London sold in India	+ 1,22	+ 3,05	—	—	+ 7,75
Transfers of Government securities	− 71	− 6	− 1	− 29	− 8
Interest drafts on India in respect of Government of India securities	—	− 35	− 36	− 33	− 33
Balance of Remittances of Funds	**− 37,96**	**− 23,36**	**− 41,39**	**− 21,01**	**+ 8**
Total Visible Balance of Accounts	**+ 5,24**	**+ 19,97**	**+ 10,72**	**+ 31,77**	**+ 37,63**

(*a*) Excludes transactions which do not enter into the balance of trade.
(*b*) Exclusive of the value of railway materials imported direct by State Railways working under Company management.

It will be noted that while exports of Indian merchandise on private account fell by approximately 90 crores or 29 per cent., imports of foreign merchandise on private account were reduced by approximately 70 crores or 31½ per cent. The total visible balance of trade in favour of India amounted to Rs.37½ crores as compared with Rs.52¾ crores in the previous year.

The Course of Exchange.—The highest and lowest quotations for telegraphic transfers on London were 1*s.* 5 7/8*d.* in March, 1931, and 1*s.* 5 3/4*d.* during most of the year. The Controller states that :—

" The total amount of sterling purchased during the year amounted to £5,395,000 at an average rate of 1*s.* 5 29/32*d.* Exchange opened in April at 1*s.* 5 13/16*d.* There was no great pressure for money to meet trade demand, but owing to the disparity of the rates between London and India and the opportunity for profitable investment afforded by the Government of India treasury bills, banks were prepared to sell ready exchange against their treasury bill purchases in the early part of the year. The total amount purchased in April was £2½ millions. The highest rate tendered was 1*s.* 5 29/32*d.* and tenders below that rate were not accepted. The same conditions obtained in the first week of May. In the second week of May exchange showed signs of weakening and at the auction of the 14th May £20,000 only was tendered at 1*s.* 5 29/32*d.* and was accepted. A further amount of £20,000 was tendered in the following week at the same rate and was also accepted. After that spot exchange gradually receded to 1*s.* 5 31/32*d.* and on the 4th June it was announced that tenders would not be received until further notice. After a temporary recovery in early July exchange became definitely weak and remained so until October, the highest rate touched in August and September being 1*s.* 5 31/32*d.* and the lowest 1*s.* 5¾*d.* notwithstanding that treasury bills were sold freely throughout this period and contractions to the extent of Rs.20 crores were made against rupee securities. At this time the civil disobedience movement was in full swing and business was seriously dislocated by political disturbances. There was also a considerable volume of organised propaganda, particularly in Western India, in favour of a change in the rupee ratio. These influences not only stopped trade but also led to nervousness in outside money markets which took the form of less willingness to invest their funds in India even for short periods. In the beginning of October there was a slight change for the better, exchange steadied up, and banks again began to take an interest in treasury bills investments. It was considered that Government had a fair chance of making purchases when exchange was steady at 1*s.* 5 13/16*d.*, and on the 23rd October £500,000 was offered for tender. Tenders for £50,000 only were received of which £25,000 was at 1*s.* 5 13/16*d.* which was accepted. This had the immediate effect of weakening the market which receded to 1*s.* 5 29/32*d.* The market again slightly strengthened at the beginning of November and the amount offered at the auction sale of the 5th November was fully tendered at 1*s.* 5 13/16*d.* and accepted. In the following week at the auction of the 12th November £150,000 only were offered and accepted at 1*s.* 5 13/16*d.* and at the auction of the 19th November no tenders were received. An announcement was made therefore that Government had withdrawn from the market for the time being. The middle of November saw the beginning of a distinct change for the worse. A period of consistent weakness set in which lasted until the end of February. This was partly due to the fact that rumours were freely circulated to the effect that one of the recommendations to be made at the Round Table Conference which was to meet in London on the 12th November was that a reversion should be made to the old statutory 1*s.* 4*d.* ratio. In the result not only were Government unable to purchase sterling during these months, but a demand arose for the sale of sterling by-

Government at the statutory rate of 1*s.* $5\frac{9}{64}$*d.* The market was governed practically entirely by the political situation throughout this period and the amount of sterling sold between November and March totalled £5,650,000. The tone of the market improved considerably towards the end of the financial year as a result of the statement made in the House of Commons by the Secretary of State. The conclusion of the political negotiations which were proceeding at Delhi had a still more salutary effect, and the tone of the exchange market in common with that of all other markets showed an immediate improvement and the spot rate touched 1*s.* $5\frac{7}{8}$*d.* in the third week of March.

" Sterling to the amount of £5,395,000 only having been purchased through the market during the year it was necessary to meet the Secretary of State's requirements by other means, such as remittance through the Paper Currency Reserve or by borrowings in London. There were three sterling issues during the year, totalling £31 millions. In addition to these loans temporary advances to the extent of £6 millions were taken from the London Office of the Imperial Bank of India, £4 millions in July and £2 millions in August of which only £2 millions were repaid during the year. The entire holding of the Paper Currency Reserve in England amounting to £2,481,000, and sterling securities held in the Gold Standard Reserve in England for £6,247,200 net were transferred to the Home Treasury primarily to meet sales of sterling against corresponding contraction of rupees in India; £2,994,200 of this amount were utilised to meet ordinary payments from the Home Treasury."

Money Market Conditions in India During the Year.—The year opened, the Controller states, with the bank rate at 6 per cent. and it remained at that level until the 10th July when it was reduced to 5 per cent. Owing to the fall in prices the demand for finance throughout the year was very much less than usual, and had it not been for the continuous issue of treasury bills by Government, money rates would have fallen to a very low level in the slack season. The extent to which the money situation was governed by treasury bills can be gauged from the following—three and nine months' bills were on offer to the extent of two crores weekly from the 1st April to the 1st July, when nine months' bills were discontinued. The sale of three months' bills was suspended from the 23rd July to the 11th August, but weekly offers were resumed with the addition of six months' bills from the 12th August, and from the 3rd March three, six and nine months' bills were sold to the extent of two crores in the aggregate weekly. It will be understood that intermediate bills were offered regularly throughout the week at fixed rates. The average yields of the three classes of three, six and nine months' bills for the whole year were 5·25, 5·05 and 5·01 per cent. respectively. In addition to these sales the currency was contracted during the year to the extent of $38\frac{2}{3}$ crores net in order to remedy the situation created by the fall in prices and consequent redundancy of money. The bank rate was raised to 6 per cent. from the 20th November and again to 7 per cent. on the 15th January, when the seasonal demand for money to finance the cotton and seed crops set in. The rate remained at 7 per cent. until the close of the year. The disparity between the Indian official bank rate and the discount rates which obtained in outside international money markets during the year was very marked.

The Public Debt.—The following table, abstracted from the Currency Report, shows the interest-bearing obligations of the Government of India outstanding at the close of the last three financial years and also the interest-yielding assets held against these obligations. The Controller points out that the figures for the Cash Balance, Cash Certificates, Post Office Savings Banks Deposits and Treasury Bills are estimates only, the final actuals not being available until several months after the close of the year :—

	31st Mar., 1929	31st Mar., 1930	31st Mar., 1931
IN INDIA.	(In crores of Rupees)		
Loans (*a*)	390·73	405·10	417·85
Treasury Bills in the hands of the Public	4·00	36·04	55·38
Treasury Bills in the Paper Currency Reserve	39·15	29·21	5·89
Total Loans, etc.	433·88	470·35	479·12
Other Obligations—			
Post Office Savings Banks	34·49	37·13	37·08
Cash Certificates	32·30	35·00	38·44
Provident Funds, etc.	60·52	65·41	70·33
Depreciation and Reserve Funds ...	31·09	30·18	23·87
Provincial Balances (*b*)	10·43	10·21	6·11
Total Other Obligations	168·83	177·93	175·83
TOTAL IN INDIA	602·71	648·28	654·95
IN ENGLAND.	(In millions of £'s)		
Loans (*a*)	283·31	289·03	315·97
War Contribution	16·72	16·72	16·72
Capital value of liabilities undergoing redemption by way of terminable railway annuities	53·35	51·86	50·32
India Bills	—	6·00	—
Imperial Bank of India Loans	—	—	4·05
Provident Funds, etc.	0·43	2·54	0·70
TOTAL IN ENGLAND	353·81	366·15	387·76
	(In crores of Rupees)		
Equivalent at 1s. 6d. to the Rupee ...	471·75	488·20	517·01
Total interest-bearing obligations ...	1,074·46	1,136·48	1,171·96
Interest-yielding assets held against the above obligations :—			
(i) Capital advanced to Railways ...	700·69	730·79	745·29
(ii) Capital advanced to other Commercial Departments	21·81	22·70	23·41
(iii) Capital advanced to Provinces ...	137·52	142·60	149·14
(iv) Capital advanced to Indian States and other interest-bearing loans	15·49	17·65	19·60
Total interest-yielding assets ...	875·51	913·74	937·44
Cash, bullion and securities held on Treasury account	28·34	45·36	35·18
Balance of total interest-bearing obligations not covered by above assets ...	170·61	177·38	199·34

(*a*) These figures represent the nominal amounts of loans outstanding and also include comparatively small amounts of expired loans which do not bear interest.

(*b*) The figures represent those portions of provincial balances which bear interest either because they form part of the old Famine Insurance Fund or the present Famine Relief Fund or because they have been placed with the Government of India on fixed deposit.

The soundness of India's debt position is clearly shown. Although there was an increase of Rs.22 crores in the unproductive debt mainly due to the revenue deficit and the loss on sale of silver during the year, India possesses interest-yielding assets plus cash, bullion and securities held on Treasury account amounting to Rs.972·62 crores to set against her total interest-bearing obligations of Rs.1,171·96 crores, leaving an uncovered balance of only Rs.199·34 crores. When the proportion of the debt which is invested in railways and irrigation projects is realised, both magnificent assets which should show increasing returns and a growing contribution to the relief of taxation, it will be granted that the debt position of India rests on a very firm basis.

The Year's Loans.—The Controller describes the Government of India's public borrowings during the year as follows :—

The Rupee Loan.—" The rupee loan was a tax bearing 6 per cent. issue. It was issued at par and is repayable at par on the 15th August, 1936, or, at the option of Government, on any half-yearly interest date after the 15th August, 1933, subject to three calendar months' notice. The loan was opened for subscription on the 28th July and was for an unlimited amount. It was announced in the notification that it would be closed on the 6th August. Subscriptions to the loan were payable in cash, in 6 per cent. bonds, 1930, and in Treasury bills. The bonds were accepted as the equivalent of cash at their full maturity value. The Treasury bills were accepted at their face value less a discount for the unexpired portions of their currency at the rate of 3 per cent. per annum in respect of bills maturing up to the 31st August, 1930, of 4 per cent. per annum in respect of those maturing between the 1st September, 1930, and the 31st October, 1930, and of 4½ per cent. per annum for later maturities. Interest on bonds tendered for conversion was paid up to the due date of maturity, namely, the 14th August, 1930, irrespective of the date on which they were tendered for conversion.

" The total amount subscribed was Rs.29,70,80,900 of which Rs.12,92,26,700 was by tender of cash, Rs.8,32,05,500 by tender of 6 per cent. bonds, 1930, and Rs.8,46,48,700 by tender of Indian Treasury bills. General market conditions when the loan was floated were by no means favourable. Trade was depressed and a general want of confidence prevailed. The stock market, particularly in Bombay, was disorganised and dominated by political excitement. When the loan was announced it was freely rumoured that an attempt would be made to boycott it and much propaganda was disseminated with that object. In spite of these adverse factors the loan was on the whole successful. The terms offered represented a rise of nearly ½ per cent. in the Government borrowing rate, but it is clear that in the economic and political circumstances of the time a high rate was essential to attract subscriptions.

" When the loan was announced the prices of securities fell in adjustment to the yield of the new loan. This was unavoidable, but after the loan closed a welcome change came over the market. Prices steadied and the new loan quickly went to a satisfactory premium. The disturbance, caused by the new issue, therefore was not very material. An interesting feature of this loan was the very large number of applications from small investors, that is to say, applications for sums of Rs.10,000 and less. These applications formed about 83 per cent. of the total."

The Sterling Loans.—" Three sterling loans were floated in London during the year :—

(1) India 6 per cent. Bonds, 1933-35. Issued in May, 1930, at £99 per cent. and the total amount issued was £7,000,000. The bonds are redeemable at

par on June 15th, 1935, or on any half-yearly interest date after June 15th, 1933, with three calendar months' previous notice;

(2) India 6 per cent. Bonds, 1935-37. Issued in October, 1930, at par, and the total amount issued was £12,000,000. The bonds will be repaid at par on October 15th, 1937, or on any half-yearly interest date after October 15th, 1935, with three calendar months' previous notice.

(3) India 5½ per cent. Stock, 1936-38. Issued in February, 1931, at £97 and the total amount issued was £17,181,250, of which £12,000,000 was received in cash and £5,181,250 issued by conversion of India 5½ per cent. Stock, 1932. The loan is repayable at par on July 15th, 1938, or on any half-yearly interest date after July 15th, 1936, with three calendar months' previous notice. Of this loan, £8,420,000 only was collected during the year under report, the balance being realised in the next financial year."

Prices of Rupee Securities.—" Prices of 3½ per cent. paper and the 4 per cent. 1960-70 loan declined gradually during the first four months of the year, the 3½ per cent. paper showing a fall of four points in April. This was in the main due to two causes, nervousness in London regarding the political situation in India reflected in a fall of nearly three points in the 3½ per cent. India Sterling Stock, and the tendency mentioned in another part of this report for investors to sell their rupee paper and remit the proceeds abroad. Another important cause was the competition of Government treasury bills. The latter absorbed undoubtedly a considerable amount of floating money which might otherwise have been available for investment in rupee securities. A further cause which contributed to the weakness in the market during this period was the dislocation of trade caused by frequent closures of the stock exchange in Bombay on political grounds. Prices steadied in the first half of June partly as a result of the successful flotation of the 6 per cent. India sterling bonds, 1933-35, issued on the 20th May. This steadiness was only temporary and the knowledge that a new rupee loan would have to be floated at an early date kept buyers out of the market. As a result all loans, including the tax free loans, showed a decline, and the 3½ per cent. paper touched Rs.62-1-0. The publication of the new loan notification caused a further drop, which, however, proved to be temporary. The new loan which immediately became popular went to a premium and the prices of other securities appreciated slowly. Prices gradually rose throughout September and October, mainly as a result of the buoyancy exhibited by Indian sterling stocks during this period. As pointed out in last year's report, arbitrage business in rupee and sterling securities has increased substantially in recent years, and there is a tendency for the prices of rupee loans to follow fluctuations in London quotations very much more closely than used to be the case. From November to February security prices showed a gradually declining tendency. This is usual, as during these months the peak of the busy season is reached when money is required to meet the seasonal trade demand. Bank rate was raised to 6 per cent. on the 20th November and again to 7 per cent. on the 15th January. The existence of tighter money conditions kept the market from showing any signs of life, and moreover it was known by this time that the forthcoming budget of the Government of India was likely to show a large deficit as a result of the depressed state of trade throughout the year, so that investors in securities were influenced by fears of a possible increase in the income tax. There was a slight improvement in the early part of March, due to the improved political outlook and the market closed with the 3½ per cent. paper at Rs.63-3-0, a drop of Rs.5-11-0 over the twelve months of the financial year."

The Budget, 1931/32.—The Hon. the Finance Member of the Government of India, in introducing the budget, summarised the position as compared with that provided for in the budget estimate for 1930/31, as follows:—

	Rs. (lakhs).
Deterioration under important revenue heads, viz., Customs, taxes on income, salt and opium (net)	12,10
Deterioration under Posts and Telegraphs (including the Indo-European Telegraph Department)	89
Deterioration under Finance Headings, viz., debt services, currency and Mint	1,38
Deterioration under other heads	5
Total	14,42

which, as the budget estimates showed a surplus of Rs.86 lakhs, revealed an estimated deficit in 1930/31 of Rs.13·56 crores.

The estimates for 1931/32 allow for a deterioration as compared with 1930/31, of Rs.13·16 crores in tax revenue, Rs.1·18 crores on Commercial Departments and Rs.3·76 crores on general Finance headings—a total of Rs.18·10 crores, which, allowing for a surplus of Rs.86 lakhs provided in the estimates for 1930/31, gave a net deficit of Rs.17·24 crores. Allowing for various economies and a windfall realisable from the sale of the Indo-European Telegraph undertaking, amounting in all to Rs.2·73 crores, the final estimated deficit for 1931/32 amounted to Rs.14·51 crores. To cover this, taxation in the form of Customs duties and taxes on income amounting to Rs.14·82 crores was incorporated in the Indian Finance Act, 1931, leaving a small estimated surplus of Rs.31 lakhs.

Increased Import Duties.—As the United Kingdom exporter is mainly interested in alterations in the customs tariff, it will suffice here to summarise the revision in the Import Schedule. The changes in the customs tariff introduced by the Indian Finance Act, 1931, fall into two distinct classes, viz., increases in the substantive rates and additional impositions in the form of surcharges. In the first category, the duty on ale, beer, porter, cider and other fermented liquors was raised by about 66 per cent. above the old level, while duties on wines and spirits (except denatured spirit and spirit used in drugs and medicines) were raised by between 30 and 40 per cent. Duties on all grades of sugar (except molasses) and sugar candy were raised by Rs.1-4 per cwt. and that on silver from 4 annas to 6 annas per ounce. Betelnuts, spices and exposed cinematograph films were transferred from the general rate of 15 per cent. to the " luxury " rate of 30 per cent. *ad valorem.*

In the second category, a surcharge of 2½ per cent. was imposed on articles already bearing 10 per cent. duty, 5 per cent. on articles bearing the general rate of duty of 15 per cent., and 10 per cent. on articles already liable to the " luxury " rate of 30 per cent. Other important surcharges are 15 per cent. on cigars, Rs.1-8-0 per thousand on cigarettes, 12 annas per lb. on unmanufactured tobacco, 9 pies per gallon on kerosene, 2 annas per gallon on motor spirit, Rs.2-8-0 per ton on batching oil, 4 pies per gallon on lubricating oil, 2½ per cent. on fuel oil, 10 per cent. on arms and

motor cars, motor cycles, &c., 2½ per cent. on artificial silk yarn and thread, 7½ per cent. on silk mixtures and Rs.2 per ton on Portland cement. A surcharge of 5 per cent. was imposed on cotton piecegoods. In addition, the excise duties on motor spirit, kerosene, and silver bullion were raised by rates corresponding to the increases in the Customs duties on these items, the enhanced rates being 8 annas per gallon, 2¼ annas per gallon, and 6 annas per ounce respectively.

All these changes in the Customs and Excise duties came into effect on March 1st, 1931.

The Railway Budget.—The Hon. Member for Commerce and Railways, reviewing the financial year 1930/31, stated that budget estimates had provided for total receipts from all sources of Rs.109½ crores and total expenses, including interest and all other charges, of Rs.103½ crores. Revised estimates, however, showed that the total receipts would not exceed Rs.96¾ crores while the total charges although Rs.1½ crores below the original estimate, would amount to nearly Rs.102 crores. They were faced therefore with a loss of Rs.5 crores 12 lakhs, in addition to which the sum of Rs.5 crores 74 lakhs would have to be found as their contribution to general revenues. It was therefore necessary to withdraw Rs.10 crores, 86 lakhs from the reserve, instead of adding Rs.34 lakhs to it as originally estimated.

The budget estimates for 1931/32 anticipate total receipts from all sources amounting to Rs.102½ crores and total charges of Rs.101¼ crores, leaving a net gain from all lines of Rs.1¼ crores. The contribution to general revenues will be Rs.5 crores 36 lakhs which will involve a further withdrawal of Rs.4 crores 15 lakhs from the reserve.

In reviewing the year 1930/31, the Commerce Member stated:—

"The surplus on the commercial lines after providing for all charges except interest is about Rs.28 crores, whereas the interest debitable to the Railways is a little over Rs.31 crores. The deficit of nearly 11 crores therefore means this, that the earnings of the railways fell short of the amount necessary to provide for full interest charges by 3 crores, the loss on the strategic railways was 2¼ crores, and the contribution to general revenues 5¾ crores. It has always been recognised that the loss on the strategic railways is a fair charge against general revenues rather than against the earnings of the commercial lines, and it is for this reason that, under the separation convention, the loss is deducted from the surplus on the commercial lines before arriving at the figure of the contribution payable. It was also recognised that we could not expect in bad years to be able to earn our full contribution to general revenues, and on this account the Reserve Fund was created out of the profits of the years of prosperity. In effect, therefore, the position is this, that looking at our commercial lines purely as a business proposition and ignoring for the moment the loss on strategic railways and the contribution, the loss on the commercial lines is only Rs.3 crores. When the adverse circumstances of the current year are taken into account with the extreme depression in trade due to the fall in world prices and aggravated by

all the circumstances connected with the civil disobedience movement, unsatisfactory though the results are, I do not think they give ground for unmixed pessimism."

Further Curtailment of Railway Capital Expenditure.—United Kingdom suppliers of railway plant have suffered severely by the curtailment of the Indian railway programme of capital works and new construction and will, therefore, receive little comfort from the outline of the capital programme for 1931/32 which was given by the Chief Commissioner of Railways in the following terms :—

" If our budget estimate last year was a modest one it is still more so this year. We are providing for a total expenditure during 1931-32 of Rs.21 crores 70 lakhs, of which Rs.8 crores 25 lakhs will be expenditure from the Depreciation Fund. Material to the value of 2 crores of rupees already in stock will be utilised for our new works so that the actual new capital which it will be necessary to find will be only Rs.11 crores 45 lakhs. We are again concentrating on completing works already in hand and on works which will increase the capacity of our main lines. In other words, in these times of scarcity we are making every endeavour to consolidate our position so that when the times of plenty come again our main trunk lines will be fully equipped to take the additional traffic which must follow construction of new lines in undeveloped country. Rs.290 lakhs are allotted for capital expenditure for the completion of new lines under construction and at the end of the year we hope to have all lines now under construction opened to traffic except the Sagaing Bridge over the Irrawaddy, the Lucknow-Sultanpur-Zaffarabad Railway, and the Tangla-Belsiri Railway in the north-east of India. Open line works in progress have been allotted Rs.410 lakhs, of which Rs.98 lakhs will come from the Depreciation Fund and if our anticipations are realised at the end of the year there will be only two works now in hand, the Dohad Workshops on the Bombay, Baroda and Central India Railway and the doubling of the Cawnpore-Tundla Section of the East Indian Railway, which will require substantial amounts for their completion during subsequent years. The only new work of any magnitude which it is proposed to take up during the year is the Narbadda Bridge on the main line of the Bombay, Baroda and Central India Railway between Bombay and Delhi. The cost of this is estimated at Rs.87 lakhs, and an allotment of Rs.15 lakhs has been made. A weak bridge of this description affects the capacity of the whole section and its renewal is overdue. The position at the end of the year will be that our commitments for completion of works will be reduced to Rs.357 lakhs, of which Rs.46 lakhs will come from the Depreciation Fund.

" Turning to our programme for rolling stock. This, after a detailed examination with railway administrations, we have reduced to Rs.5¼ crores of rupees, of which Rs.2¼ crores will come from the Depreciation Fund. It has only been possible to get to this figure by redistribution of existing rolling stock between the various railways. By this means it has been found possible to avoid purchases amounting to nearly half a crore. Other avenues of savings have been explored, *e.g.*, it has been found possible by reconditioning second-hand wheels for carriages and wagons to make a further saving of just over Rs.12 lakhs."

Indian Joint Stock Companies in 1930/31.—*Flotations.*—After showing an upward tendency during the years 1927/28 to 1929/30, there has been a setback during the past year. The following statement shows the position over a period of years :—

Year.	Companies registered.		Aggregate authorised capital.		Average authorised capital per company.
	No.	Index No. (pre-war year =100).	Amount.	Index No. (pre-war year =100)	
			Rs.000's omitted.		Rs.000's omitted.
1913-14 (pre-war)	356	100	66,91,53	100	18,79
1925-26 ...	472	133	30,06,08	45	6,37
1926-27 ...	529	149	19,39,09	29	3,67
1927-28 ...	626	176	17,57,04	26	2,81
1928-29 ...	725	204	27,37,81	41	3,78
1929-30 ...	842	237	61,66,27	92	7,32
1930-31 ...	734	206	21,76,09	33	2,96

During the past year increases in the authorised capital were noticeable under the following heads:—Investment or Trust (+Rs.72 lakhs); Estate, Land and Building (+Rs.63 lakhs); Jute Mills (+Rs.54 lakhs); Motor Traction (+Rs.46 lakhs); and Iron, Steel and Shipbuilding (+Rs.44 lakhs). As I have repeatedly stated the amount of authorised capital is a very unsafe guide to the actual state of affairs, as in the majority of Indian concerns the paid-up capital is only a small fraction of the authorised capital. Companies in India go to allotment on very small subscriptions.

Liquidations.—269 companies with a total authorised capital of Rs.35 crores, having ceased work, went into liquidation or were finally dissolved during the year 1930/31. These included 83 general trading companies, 18 banks, 18 printing, publishing and stationery companies, 15 Nidhis and Chit Associations, 13 tea planting companies, ten mining companies and nine entertainment companies.

Indian Working Class Cost of Living Index—Bombay.—This index figure, as might be expected, has followed the heavy fall in wholesale commodity prices and declined during the year from 41 per cent. in March, 1930, to 11 per cent. in March, 1931. The tendency is still downwards. The articles included in the index are cereals, pulses, other articles of food, fuel and lighting, clothing and house rent. The articles have been given the relative importance which each bears to the total all-India aggregate expenditure. No allowance is made for any change in the standard of living since July, 1914.

(All items: percentage increase over July, 1914).

	1924	1925	1926	1927	1928	1929	1930	1931
	Per cent.	Per cent.	Per cent.	Per cent.	Per cent.	Per cent.	Per cent.	Per cent.
January	59	57	55	56	54	49	47	17 (*a*)
February	56	57	54	55	48	48	44 (*a*)	13 (*a*)
March	54	59	55	55	45	49	41 (*a*)	11 (*a*)
April	50	58	53	53	44	48	40 (*a*)	11 (*a*)
May	50	56	53	52	47	47	39 (*a*)	10 (*a*)
June	53	54	55	54	46	47	40 (*a*)	9
July	57	57	57	56	47	48	39 (*a*)	8
August	61	52	55	57	46	49	36 (*a*)	8
September ...	61	51	55	54	45	49	36 (*a*)	—
October	61	53	55	51	46	49	31 (*a*)	—
November ...	61	53	54	50	47	50	27 (*a*)	—
December ...	60	55	56	51	48	50	21 (*a*)	—
Yearly average ...	57	55	55	54	47	49	37 (*a*)	—.

(*a*) Revised figures.

Patents and Designs.—In his report for the calendar year, 1930, the Controller of Patents and Designs states that the economic depression, aggravated by the unsettled political conditions in India, had an adverse effect on the number of applications for patents filed in British India during the year under review, which declined from 1,392 in 1929 to 1,099 in 1930. Of these applications, 212 originated in India and the remaining 887 came from abroad. Four applications were received from women inventors. Applications, to the number of 334, claimed priority for the patents under reciprocal arrangements with the United Kingdom and other parts of the British Empire; eight were for patents of addition. Notwithstanding the fall of 21 per cent. in the total number of applications for patents filed in 1930, there was a fall of only 8 per cent. in the number of applications which originated in India. In view of the political and economic conditions prevailing, considerable interest attaches to the Controller's remarks on the trend of inventions:—

"A conspicuous feature worth mentioning in connection with the applications for patents filed in 1930, is the effort made by a large number of Indian inventors for perfecting the 'Charka,' or the hand spinning wheel. The attention which the 'Charka' has been receiving from inventors has been somewhat spasmodic. During the period of eleven years, from 1910-1920, there was not a single application for a patent relating to the 'Charka.' In 1921, however, there was an intense propaganda in the country for popularising the 'Charka' and there were suddenly 11 applications during the year, dealing with improved 'Charkas.' Since then, there was a rapid decline in the number of inventions in this field, and there were only 6 applications dealing with the 'Charka' in 1922, nil in 1923 and 1924, and a total of only 5 during the period of five years from 1925-1929. In 1930, there was again a sudden increase, and the number of such applications filed during the year reached a record figure of 19. The great prize offered by the All India

Spinners' Association for an efficient 'Charka' was, in a large measure, responsible for the strong incentive given to a number of inventors engaged in this field. Practically all the improvements proposed in connection with the 'Charka' aimed at carrying out continuously and automatically the operations of initially drawing and twisting the cotton fibres, of spinning and twisting the thread and of winding the yarn.

"Improvements relating to high-draft and ring spinning machinery received attention from inventors from abroad.

"Power looms engaged the special attention of inventors from Japan and the United Kingdom, and handlooms received the attention of Indian inventors.

"Although increased application of electricity for industrial purposes and the improvement of electrical appliances have been the theme of a large number of inventors during recent years, the contribution made by Indian inventors in this field has been extremely poor. Out of about 150 applications filed during the year in respect of inventions relating to the various branches of electrical engineering, only 3 originated in India. Increased activity was noticed during the year in connection with means for improving the efficiency and the durability of vacuum discharged electrical apparatus. Inventions relating to electrical totalizator systems, for providing increased facility, economy, and expeditousness in working, also showed an increase during the year.

"No review of the trend of inventions patented in India during the year will be complete without a reference to the activity of inventors in the field of agriculture and irrigation. The number of inventions for agricultural implements was generally less in 1930 than in 1929. One of the Indian applications relating to ploughs was for the attaching means of the draught pole so as to reduce the jerks on the necks of the animals. As before, applications for improved Persian wheels and water lifts were contributed by the Punjab and the United Provinces. Improved machines were devised for husking "mashoor dhal," for cleaning rice, for conditioning grain, for crushing sugarcane and for cracking nuts.

"There was a steady progress in the inventions relating to the manufacture of tea, the objects aimed at being to regulate the pressure under which the leaf is rolled so as to rupture the cells, and to control artificially the withering of the plucked leaves, by using pre-conditioned air, and thereby make the withering process independent of the changes in the atmospheric conditions.

"Although there was vigorous propaganda in the country for the boycott of cigarettes, there was a record number of applications during the year relating to cigarette making machinery. All these applications, however, were from the United States. There was only one application relating to the manufacture of "biries" or country cigarettes.

"Apart from the industries already referred to, there was, in comparison with 1929, an appreciable increase in the number of applications relating to ventilating arrangements for buildings and railway vehicles, appliances for indoor and outdoor games, treasure boxes and padlocks, and the manufacture of paper pulp from vegetable matter.

"An appreciable decrease was noticed in inventions relating to chemical and metallurgical industries, artificial silk industry, petroleum and coal and other fuel industries, buildings and structures, advertising devices, glass manufacture, heating and lighting appliances, photography, phonographs and telephones. There was normal activity in other industries."

As regards designs, 5,454 applications were filed during the year, of which 163 originated in India and the rest came from abroad. The textile designs came mainly from the Calico Printers' Association, Ltd., who filed 5,003 applications during the year. There was a sudden increase in the number of embroidery designs, no

less than 54 being registered in 1930 of which 48 originated in Switzerland. Previously to this the number of embroidery designs registered in India had been negligible. Of the designs other than textile designs those relating to sports goods (footballs, cricket balls, tennis rackets, &c.) from the Punjab; steel boxes, trunks, suit cases, &c., from Delhi, and miscellaneous articles such as wooden trunks, aerated water bottles, spoons, teapots, lamp-stands, rice boilers, &c., predominated.

Civil Aviation.—I am indebted to Mr. F. Tymms, M.C., Director of Civil Aviation in India, for the following comprehensive note on the progress of civil aviation in India during 1930/31 :—

" **1. Imperial Airways—London-Karachi Air Service.**—The England-India Air Mail Service continued to operate as a weekly service, the incoming mail arriving at Karachi at first on Saturday afternoon and later on Sunday afternoon and the outgoing mail leaving Karachi at first on Tuesday and later on Wednesday morning. The value of imports and exports by this service during the year 1930 amounted to Rs.8,95,258/- (including bullion and specie to the value of Rs.7,65,876/-) and Rs.4,150/- respectively. The number of passengers who made use of this service during the year was as follows :—

Arrivals in Karachi	...	...	...	69
Departures from Karachi	...	...	...	66

2. Indian State Air Service, Karachi-Delhi-Calcutta.—Fifty-two weekly flights were made each way between Karachi and Delhi involving an aircraft mileage of 71,760. 125 passengers were carried and 2,117 lbs. of mail matter were transported on the westbound and 3,648 on the eastbound route. The service was operated throughout the year by machines chartered from Imperial Airways Ltd.

" Provision was made for the extension, during the year, of the Indian State Air Service from Delhi to Calcutta and Rangoon, the intention being to operate that section of the service with small aircraft carrying mails only. The Government of India subsequently decided to inaugurate a service between Karachi and Calcutta, as a State-owned and managed concern, with larger aeroplanes carrying both passengers and mails. The necessity for this change in policy deferred the institution of the service. Notice of termination of the charter agreement, under which Imperial Airways at present operate the Indian State Air Service between Karachi and Delhi, has been given to that Company, and the arrangement will cease, with effect from the 30th December, 1931. It is hoped that the service between Karachi and Calcutta will be opened simultaneously with the termination of the existing charter service between Karachi and Delhi.

3. Foreign Services across India.—" During the year under review, permission was accorded for the operation across India of a regular fortnightly air service by the Dutch Company, Koninglijke Luchtvaart Maatschappij, from Amsterdam to Batavia; permission was also granted to the French Company, Air Union Lignes d'Orient, to establish a fortnightly service crossing India from Paris to Saigon. These services carry mails, passengers and goods to and across India, and are permitted also to embark passengers and goods in India for abroad.

" The Dutch service, following a series of regular experimental flights, started on the 29th September, 1930, and up to the end of December completed seven outward and six return flights. The operation of the French service commenced on the 17th January, 1931. The Dutch service is operated by Fokker F.XII aircraft and the French service by Fokker F.VII aircraft.

4. Private Flying Clubs.—" The flying clubs in India are under the control of a parent club, known as the Aero Club of India and Burma, which received a subsidy of Rs.30,000 for the financial year 1930-31. The four flying clubs at Karachi, Bombay, Delhi and Calcutta were each granted a subsidy of Rs.20,000 for the same year, and in addition a bonus calculated at the rate of Rs.150/- for each pilot trained during the year, subject to a maximum of Rs.5,000/-. This constituted the fourth year of subsidy to these clubs. In addition each flying club has received a grant of Rs.9,000 towards the construction of a hanger.

" Two new flying clubs were formed during the year under review, one at Lahore known as the Punjab Flying Club, and the other at Madras. Each of these two clubs was provided with two D. H. Gipsy Moth with spare engines, and received Rs.20,000/- as subsidy, a bonus not exceeding Rs.2,250/- for pilots trained during the year, calculated at the rate of Rs.150/- for each pilot, and Rs.15,000/- towards the provision of a hangar. Flying training commenced on the 31st May in the club at Lahore and on the 21st July at Madras.

" The total number of members trained *ab initio* in all the six clubs during the calendar year 1930 was 93. Of the members so trained 79 were granted their pilot's ' A ' licences. Of these latter, 37 were Indians including two ladies, viz., Miss Rodabeh Tata and Mrs. Urmila K. Parekh, both of whom were trained by the Bombay Flying Club. One Indian—Mr. Bhagat Behari Lal—succeeded in obtaining his ' B ' licence (*i.e.*, a licence allowing him to fly for hire or reward). He is the first Indian trained in India to have done so. He was trained by the Delhi Flying Club.

" Increasing interest in civil aviation is being taken by the Princes and Ruling Chiefs. H.H. the Maharaja of Jodhpur has completed his tests for a pilot's ' A ' licence, and has purchased a D. H. Gipsy Moth for his own use. The Raja of Kalsia, who is also the owner of a D. H. Moth which he pilots himself, is the holder of an ' A ' licence. Both are members of the Delhi Flying Club.

5. International Flights by Indians.—" In the issue of ' India, 1929-30 ' mention was made of the offer by H.H. the Aga Khan of a prize of £500 for the first solo flight between England and India or vice-versa by a person of Indian nationality. This led to a race between three Indians. The first to start was Mr. Man Mohan Singh, who took off from Croydon on the 8th April, but could not reach Karachi before the 10th May, 1930, having had a forced landing in a swamp at St. Rambert near Marseilles, which damaged his machine. The second competitor, Mr. Aspy Engineer, left England on the 25th April and arrived at Karachi on the 11th May, a day behind Mr. Man Mohan Singh. The third competitor, Mr. J. R. D. Tata, entered the race on the 3rd May, starting from Karachi. He reached Croydon on the 12th May, 1930.

" As Mr. Man Mohan Singh had exceeded the time limit of one month laid down as one of the conditions for the prize, it was awarded to Mr. Engineer. Though Mr. Tata did not win the prize, his was a highly creditable performance in that he completed the flight in the least time, nine days.

" His Highness the Aga Khan has offered another prize of £500 for the first solo flight from India to Cape Town by an Indian. Two unsuccessful attempts have so far been made for this prize. One was by Mr. Apsy Engineer, the winner of the previous prize, who left Karachi in a D. H. Puss Moth on the 30th December, 1930, but wrecked his machine in a marsh near Abadan. He was compelled to abandon the attempt and return to India. The other attempt was by Mr. Morad, who left Calcutta for Cape Town at the end of December, 1930, in a D. H. Gipsy Moth, but crashed near Shaibah. His machine having been wrecked, he also had to abandon the flight and return to India.

6. International Flights by non-Indians.—" The number of flights by foreign and non-Indian aviators across India during the year was 22 (excluding the flights carried out on the Dutch and French Air Mail Services). These were distributed as follows :—

English	... ...	11
Italian	... ...	1
French	... ...	4
American	... ...	1
Australian	... ...	3
Dutch	... ...	1
Portuguese	... ...	1
	Total	22

Among the aviators there were two English ladies, Miss Amy Johnson and the Hon. Mrs. Victor Bruce, and one French lady Mlle. Marys Hilsz. Miss Amy Johnson flew in a D. H. Gipsy Moth from England to Australia in an attempt to beat Squadron Leader Hinkler's record of 15½ days. The Hon. Mrs. Victor Bruce flew in a Blackburn Bluebird from England to Tokio and later across America. The flight of Mlle. Marys Hilsz was from France to French Indo-China, which she accomplished successfully.

" Two other flights are worthy of special remark, one being the record flight from England to Australia in 10 days by Wing Commander (now Air Commodore) Kingsford Smith, in an Avro Avian ; the other, the flight by two French airmen—Capts. Gouelette and Lalouette—who flew from Paris to Saigon in the record time of 5¼ days.

" It is regrettable to have to report one fatal accident in connection with these flights. Messrs. Hook and Mathews, while crossing Burma en route for Australia, during the monsoon, were forced down by heavy rain and low clouds in the Yoma Mountains. The machine was slightly damaged, though the occupants were unhurt. Unfortunately the task of reaching civilisation proved too arduous, and though Mr. Mathews managed to get in touch with villagers, Mr. Hook died of exhaustion.

" In view of the great cost of organising relief expeditions in cases of this kind, steps have been taken to discourage individual aviators from attempting the flight over Burma during the monsoon.

" Acknowledgment is due to the many private individuals and organisations who assisted freely in the organisation of relief and rescue expeditions.

7. Air Survey and Photography.—" During the calendar year 1930, the Indian Air Survey and Transport Ltd., which has its headquarters at Dum Dum (Calcutta), completed vertical photography of 4,110 square miles. Areas totalling 3,440 square miles were photographed for the purpose of compiling 16in. to the mile settlement maps, the scale of the negatives being 6in. to the mile. The remainder was undertaken for a variety of purposes, including town planning, irrigation, forest and railway surveys. The Company's programme for settlement surveys is being continued during 1931, and by the beginning of February their field parties had already photographed 1,600 square miles in the United Provinces, Bengal and Bihar and Orissa.

" The Company's flying equipment has consisted of three D. H. 9 aircraft and one Avro Avian. Flying has been carried out from temporary bases established in the districts being surveyed ; the hours flown during 1930 totalled 419 hours 25 minutes.

" The Company's drawing office has been fully employed on all classes of mapping from photographs taken during the previous season.

" Research work has been undertaken by the Company with a view to reducing the amount and cost of the ground survey necessary to provide data for the complete rectification of vertical photographs used for large scale mapping. As a result, new methods have been introduced and a saving of a quarter to one-third in the cost of the ground control effected ; the high standard of accuracy called for in this class of work is being maintained.

" In addition, a large number of oblique photographs have been taken by the Company for commercial purposes; reconnaissance flights for Railway and Forest Departments have also been made by them.

8. Ground Organisation.—" A sum of Rs.14,59,700 was included in the Civil Aviation Budget for the year 1930-31 for expenditure on the ground organisation of the air routes in India.

This amount was spent on the following works :—

(i) Ground organisation of the Karachi-Delhi Section.
(ii) Ground organisation of the Delhi-Calcutta Section.
(iii) Ground organisation of the Calcutta-Rangoon Section.
(iv) Partial preparation of the site for Bombay (Juhu) aerodrome.

The following major works were carried out during the year :—

(*a*) *Karachi-Delhi Section.*

Karachi—Improvements to the water supply.

Hyderabad—Extension of the Royal Air Force landing ground to make it fit for commercial machines.

Delhi—Improvements to the roads and fencing.

(*b*) *Delhi-Calcutta Section.*

Calcutta—Acquisition of extra land in order to keep clear the air approaches.

Provision of electric light. Improvements to the water supply.

(*c*) *Calcutta-Rangoon Section.*

Chittagong—Partial preparation of the ground.

Sandoway—Preparation of the ground.

Bassein—Preparation of the ground.

Rangoon (Mingaladon)—Completion of the preparation of the ground. Erection of a hangar. Provision of electric light and water supply.

The distances between these landing grounds are as follows :—

	Miles.
Calcutta (Dum Dum)—Chittagong ...	228
Chittagong-Akyab	178
Akyab-Sandoway	158
Sandoway-Bassein	120
Bassein-Rangoon (Mingaladon)	101
	785

(*d*) *Bombay* (*Juhu*).—" In order to ensure that this ground should remain fit for use during the monsoon it was decided to raise the surface by an average of 4·5 feet. Part of the aerodrome has been completed, but an area has been left so that machines may continue to use a part of the ground until the newly raised part has settled down properly.

" The total amount which has been spent up to the end of 1930-31 on the establishment of air routes and aerodromes in India is approximately Rs.41,34,973.

" This was divided as in the tabular statement below :—

	Rs.
Acquisition of land	8,30,377
Preparation of sites	13,66,070
Hangars and buildings	7,20,801
Roads	84,346
Wireless Stations	10,05,000
Meteorological stations	57,000
Aerodrome equpiment	71,379
	41,34,973

" The following statement shows broadly the ground organisation for civil aviation which has been provided up to date :—

Karachi.—Aerodrome with 2 hangars. W/T and D/F stations and meteorological station giving forecasts for the Bushire-Karachi-Jodhpur section.

Hyderabad.—Meteorological observer who can give local upper air and landing conditions on the R.A.F. landing ground.

Uterlai.—Landing ground.

Jodhpur.—Aerodrome with W/T and D/F station and meteorological observer giving local upper air and landing conditions.

Badhal.—Landing ground.

Delhi.—Aerodrome with hangar, W/T and D/F station and meteorological station giving forecasts for the Jodhpur-Delhi-Gaya Section.

Allahabad (Bamrauli).—Aerodrome with hangar, W/T and D/F station, and meteorological observer, who can give local upper air and landing conditions.

Gaya.—Landing ground with W/T and D/F stations and meteorological observer who can give local upper air and landing conditions.

Calcutta (Dum Dum).—Aerodrome with hangar, W/T and D/F station and meteorological station giving forecasts for the Gaya-Calcutta-Akyab Section.

Akyab.—Aerodrome with W/T and D/F station.

Sandoway.—Landing ground.

Bassein.—Landing ground with W/T and D/F Station.

Rangoon (Mingaladon).—Aerodrome with hangar, W/T station and meteorological station giving forecasts for the Akyab-Rangoon-Victoria Point Section.

Bombay (Juhu).—Aerodrome.

"The W/T and D/F stations do not at present keep continuous watch. Arrangements can be made for them to operate on any particular day if required. Forecasts of weather conditions in Madras and Bombay Presidencies, Central Provinces, Hyderabad, and Mysore can be obtained from the Poona Meteorological Station.

" In addition, Royal Air Force aerodromes and landing grounds in India are available for civil aviation.

9. Licences and Certificates.—" The table below shows the number of licences and certificates issued up to the end of the year 1930 and those current on the 31st December, 1930 :—

	New licences or certificates issued up to the end of 1930.			No. of licences and certificates current on 31st Dec., 1930.
	Issued up to the end of 1929	Issued during 1930	Total.	
Pilots' " A " licences (1) ...	65	93	158	123
Pilots' " B " licences (1) ...	36	29	65	27
Ground Engineers' licences ...	24	7	31	11
Certificates of registration (or re-registration)	54	36	90	42
Certificates of airworthiness (2) ...	32	13	45	22
Certificates of approval of aerodromes (3)	1	—	1	1

Note.—(1) While pilot's " A " licences, with the exception of 14, represent original licences obtained in India by persons trained in India, the majority of " B " licences were issued either to the Royal Air Force officers or to persons who held British Air Ministry " B " licences. Only two Indians trained in India offered themselves for examination in the tests prescribed for a " B " licence. One succeeded in obtaining the licence.

(2) Of the certificates of airworthiness issued, a certain number have been allowed to lapse because under the Indian Aircraft Rules, as they stand at present, no certificate of airworthiness is required by a private aircraft.

(3) With the exception of the one aerodrome shown, the aerodromes and landing grounds available for civil aviation in India are the property of the State and do not appear above.

10. **Air Navigation in Indian States.**—" At their session held on the 17th March, 1931, the Chamber of Princes adopted a Summary of Principles regarding the regulation of aviation in the Indian States. The following are the main features of the Summary :—

" It is admitted that the sovereignty of the Rulers of the States—in whatever measure they severally possess it—over their territories, embraces the air space above those territories. It is agreed that the Government of India, in fulfilment of its obligations as a signatory to the International Convention for the Regulation of Air Navigation, will regulate air navigation over the Indian States. Thus there will be one central authority in India for the issue of licences and certificates in relation to aircraft, personnel and aerodromes. The Indian States agree to enact and enforce legislation on the lines of British Indian legislation with regard to navigation of the air and the rules and regulations thereunder for the time being in force.

" The notification of prohibited areas in Indian State territory will be made after consultation with the Government of India. The establishment of aerodromes and landing grounds in Indian State territory may be carried out by the State concerned or, by arrangement, by the Government of India. In order to safeguard their fiscal rights each State may designate one or more Customs landing grounds for aircraft arriving at or departing from its territory.

" The general effect of these provisions, it will be seen, is to reserve to the States specifically their rights with regard to notification of prohibited areas and customs, while providing for the unified control of aviation in India by means of concerted action between the Government of India and the States."

Since the above report was written the future of civil aviation is in suspense owing to the urgent need for economy in all Government of India spending departments. The subject of civil aviation is engaging the attention of the Indian Retrenchment Committee at the present time, but a decision has not yet been reached. Meanwhile, expenditure on ground organisation has been largely suspended, including the lighting arrangements for night flying, tenders for which have already been received.

Wireless Telegraphy.—I am indebted to the Acting-General Manager of the Indian Radio Telegraph Co., Ltd., for the following note with regard to the development of wireless communications in India :—

" **Beam Telegraph Service between India and England.**—The main activities of the Indian Radio Telegraph Company include the Wireless Beam Telegraph Service between India and England, and the following comparative figures of the traffic exchanged between India and England by means of this service offer interesting information :—

Total sent and received words.

1928	1929	1930
114,87,741	129,32,764	124,95,434

" Although the total of the sent and received words for the year ended 1930 is only 3 per cent. less than the total of the sent and received words for the previous year, in view of the general depression in trade experienced during the year under report, these figures show that an increasing proportion of the total available traffic is following our route. However, it might be pointed out here that although there has been no considerable decrease in the cheaper classes of telegrams, owing to the adverse times our full-rate traffic has fallen appreciably, with the result that our total telegraph revenue for the year as compared with the last year exhibits a fall of 10 per cent.

" The three main questions of vital importance to this Company, to which a reference was made in the last year's report and which have since then been engaging the most earnest and thoughtful attention of the Company are :—

(1) A scheme for the formation of a Communications Company in India with a view to merge the Cable and Wireless interests of the Government of India, the Imperial and International Communications Co., Ltd., London, and the Indian Radio Telegraph Co.

(2) The establishment of an Indo-Japanese Wireless Service ; and

(3) The establishment of a system of Wireless Telephony between this country and Great Britain in co-operation with the General Post Office, London.

" The aim of the Company is to afford the public a cheap, accurate and speedy means of communication and in furtherance of this policy negotiations were carried on with the Indian Government for obtaining facilities for the more rapid distribution of traffic over inland lines. These negotiations have now resulted in the Government Telegraph Department deciding to adopt the Carrier Current System, which is being installed between Calcutta and Bombay.

" The other activities of the Company include :—

Point to Point Wireless Services.—During the year Marconi installations have been supplied to the Indian Government for Karachi, Calcutta, Chittagong, Akyab, Bassein and Sandoway.

" A series of Wireless Telephonic equipments have been ordered by the Bikaner State for linking up various sub-stations of their Hydro-Electric Scheme with Bikaner headquarters. Negotiations are proceeding with both the Calcutta and Bombay Police Authorities.

" **Wireless Beacon and Direction Finding Stations.**—The Bombay Port Trust authorities have ordered a Wireless Beacon to be installed at Kennery Island. This equipment will be installed immediately after the present monsoon. It is anticipated that this first Wireless Beacon on the Indian coast will be the forerunner for several more such equipments. The value to shipping and to the safety of life at sea has been so ably demonstrated in many parts of the world by the use of such installations that considerable developments in this connection can be confidently anticipated.

" The Government of India have ordered two of the very latest type Direction Finding Equipments called the ' Adcock ' type. These two Direction Finding stations will be installed at Calcutta and Karachi in connection with the development of aviation services in this country.

" **Public Address Equipments.**—The Indian Radio Telegraph Co. have carried out a large number of successful demonstrations with their public address equipments and the demand for the use of such equipments is steadily increasing for public address functions of all kinds and also for band amplification. Several complete sets of Public Address equipments have been sold to the Indian States where they are giving every satisfaction.

" **Future Developments.**—Apart from inter-continental telegraphic services there appears to be a considerable field for the development of wireless in India. It is admittedly suited for police outposts, for coastal communication with lighthouses and lightships, and as an aid to navigation to both ships and aeroplanes with the anticipated development of commercial aviation in India for aerodromes and meteorological purposes, it is anticipated that there will be considerable developments on these lines in India in the near future."

Broadcasting.—The assets of the Indian Broadcasting Co., Ltd., were taken over by the Government of India from March 31st, 1930, against a cash payment of Rs.3 lakhs and the service is being continued as the Indian State Broadcasting Service. As a temporary arrangement the Postmaster-General, Bombay, and the Electrical Engineer-in-Chief assumed control of the organisation in Bombay and Calcutta respectively, the station Director of each station remaining in charge. The financial results of the working of the service for the first six months from April 1st to September 30th, 1930, disclosed a net loss of Rs.75,936. The future of the service is now engaging the attention of a special sub-committee of the Indian Retrenchment Committee and, in view of the present pressing need for public economy, fears are entertained that the service may be suspended for some time although no definite decision has yet been reached.

The Indian Census, 1931.—The census of India was taken on the night of February 26th, 1931, in India, and February 24th, 1931, in Burma. The provisional figures, which were released by the Government of India in March, show that the total population of the country is 351,450,689* viz., British Territory 270,612,162 and Indian States 80,838,527, giving an increase of 23,608,869 in British Territory and 8,899,340 in Indian States. Although these figures are provisional, the Government of India state that the experience of previous censuses shows that the difference between the population according to the provisional totals and that as finally ascertained does not amount to more than 1 in 2,500 persons and the figures are therefore sufficiently accurate for practical purposes and can be adopted by Local Governments for administrative purposes and for calculation of proportions and percentages based on population.

The following table gives the percentage variations at each of the last three occasions when a census was taken :—

	1901-11	1911-21	1921-31
	%	%	%
All-India	+ 7·1	+1·2	+10·2
Provinces	+ 5·5	+1·3	+ 9·55
States	+12·9	+1·0	+12·3

*The first revised census totals issued in September, 1931, give a figure of 352,986,876 for all-India, which shows an increase of 10·6 per cent. since 1921.

An increase of population of 32½ millions representing an addition of over 10 per cent. in one decade is an event of almost transcending importance in any consideration of India's economic position. The relatively small increase in the decade 1911 to 1921 is attributed to the ravages of the influenza epidemic of 1919 which took a heavy toll of life in India. During the past decade India has been free from any visitation of nature such as famine, epidemic, earthquake or widespread flood with the result that, under the aegis of the Pax Britannica, the improvements in social hygiene, medical services, sanitation and public health organisation have borne full fruit. The following table shows the present population and percentage increase in each of the principal Provinces and States :—

	Population. 1931	Variation 1921-31. Per cent.
Assam	8,784,943	+15·5
Bengal	49,997,376	+ 7·08
Bihar and Orissa	37,590,356	+10·5
Bombay Presidency	21,102,126	+ 9·06
Burma	14,652,272	+10·8
Central Provinces and Berar	15,472,628	+11·2
Madras	46,731,850	+10·4
N. W. Frontier Province	2,423,380	+ 7·64
Punjab	23,580,520	+13·9
United Provinces	48,423,264	+ 6·7
Mysore State	6,554,573	+ 9·62
Hyderabad State	14,395,493	+15·04
Travancore State	5,090,462	+27·0
Cochin State	1,204,235	+22·9
Kashmir State	3,645,339	+ 9·8
Rajputana Agency	11,223,708	+14·01
Central India Agency	6,615,204	+10·3

The most striking features are, firstly, the increase of 13·9 per cent. in the case of the Punjab, largely due to general prosperity and the bringing of increased areas into cultivation as a result of irrigation; secondly, the increase of 15·5 per cent. in Assam which is due to a larger population, mostly immigrants from other provinces, settled on the tea estates; thirdly, the very high rate of increase in the advanced Indian States of Travancore and Cochin, where the standards of education, social life and hygiene, and public health are very high. Calcutta is the most populous Indian City with a total (with Howrah) of 1,383,898. Bombay City comes next with a total of 1,157,851. Details with regard to religion, caste, occupation, &c., are not yet available.

From an economic standpoint, a steady increase in India's population of three millions per annum, three-quarters of whom

are directly supported by the land, is likely to raise problems of the first magnitude. Unless rapid and successful efforts are made to increase the agricultural yield of the country, the pressure for subsistence will become increasingly acute. While it is true that the yield per acre of India's staple crops is a very low one, the intense conservatism of the ryot constitutes a serious obstacle to improvement.

Royal Commission on Labour in India.—The report of the Royal Commission on Labour in India, generally known as the Whitley Commission, to which reference was made in my last report, was published early in July, 1931. The report contains most valuable information with regard to labour conditions in every branch of economic activity in India. The recommendations, which extend to 34 pages of the report, are far too lengthy to be reproduced here. Mention may be made of certain of them, which are of particular interest to the United Kingdom industrialist, viz. :—(1) the weekly limit of hours for perennial factories should be reduced to 54 and the daily limit to 10; (2) Factories working on continuous processes or supplying daily necessities may be allowed a 56 hour week subject to an average week of 54 hours for the operative and in conformity with the provisions in respect of holidays; (3) The maximum daily hours for children should be limited to 5; (4) The minimum rate for overtime should be $1\frac{1}{4}$ times the normal rate where work exceeds 54 hours a week and $1\frac{1}{2}$ times the normal rate for work in excess of 60 hours a week; (5) In the framework of the future constitution, provision should be made for an organisation (the Industrial Council) which would enable representatives of employers of labour and of Governments to meet regularly in conference to discuss labour measures and labour policy; (6) A Labour Commissioner responsible for the administration of all labour subjects should be appointed in every province except Assam, &c., &c. In their introductory remarks the Commission state :—

"We are writing at a time when circumstances, both economic and political, are exceptional. In the economic sphere India, in common with many other countries, is facing a period of stress. Indian industry is involved in the general depression, and many of the industries with which we are concerned are facing serious difficulties which, we hope, will soon be surmounted. With orderly progress in India, her industry should have a great future. But the present position is one of anxiety for industrialists, for many workers and for all concerned in Government. We have considered the extent to which we should allow our recommendations to be influenced by the events of the last year, and have concluded that it would be wrong for us to give these any large influence. India has the right to expect from us, not a series of recommendations framed in the light of the existing crisis, but a considered programme for the development of labour policy. As a matter of fact nearly all our evidence relates to conditions in 1929 or early 1930, before the present crisis developed. Our survey, therefore, is a survey of conditions as they then stood and, for the most part, our recommendations are framed with reference to circumstances as they then existed. If the execution of some of the changes we advocate is made more difficult by reason of the present position, others are

thereby rendered more easy to introduce. Some recommendations involve no expense, others call for financial outlay; but, as a whole, they are calculated to secure increased prosperity. It is sometimes assumed that good conditions for labour involve a sacrifice for industry. But, in the experience of India, there is abundant evidence to show that a generous policy in respect of labour is a wise policy in respect of industry. It is not possible for India to secure a permanent advance for her industries at the expense of her labour, and we are confident that this is far from her desire. In the views submitted to us, the suggestion that cheap labour is a national asset was seldom made. On the contrary, there is widespread recognition of the fact that industrial activity finds its strength and much of its justification in the prosperity of all who contribute to it. We have attempted to exercise as much foresight as we can, and we believe that the principles underlying our recommendations are likely to abide; but we have not attempted to anticipate the problems and difficulties of a future generation."

The recommendations of the Commission are now receiving the careful attention of the Industries and Labour Department of the Government of India and a circular letter will shortly be addressed to Local Governments explaining the Central Government's attitude to the Report and the measures it proposes should be taken for the early treatment of the questions raised.

The Indian Central Banking Enquiry Committee.—The report of the Indian Central Banking Enquiry Committee, presided over by Sir Bhupendranath Mitra, was published on September 16th, 1931, and provides most illuminating, and hitherto unavailable, facts with regard to existing credit agencies, rural finance, the Indian banking system and money market, and the financing of foreign trade. United Kingdom industrial and export interests should pay special attention to the chapter devoted to the methods of financing foreign trade, to the comments of the international experts, and also to the criticisms of the exchange banks contained in the minutes of dissent and the minority report. These last clearly show the trend and intensity of nationalist feeling which persists among a large section of the politically-minded Indian commercial community. The recommendations of the Committee are much too lengthy to be quoted *in extenso*. The following summary of the recommendations affecting the Exchange Banks will, however, be found to be of interest to my readers :—

(1) The suggestion that exchange banks should consider the possibility of changing their present custom to the extent that they should be prepared to accept import bills instead of purchasing them, in the same way as house paper of a London export house is now accepted by them, is commended for the careful consideration of the exchange banks.

(2) If Indian importers find it convenient to have the exporters draw on them in rupee bills, the exchange banks should co-operate and encourage their efforts in this direction.

(3) The Exchange Banks' Association should consider the advisability of consulting commercial bodies in all cases of changes in the rules of the Association.

(4) Exchange banks should take steps to remove the existing grievances regarding payment of drafts held by the banks for collection.

(5) It is suggested that exchange banks, in consultation with representatives of the Indian Insurance Companies, should arrive at some understanding similar to that between the Imperial Bank of India and the insurance companies.

(6) All non-Indian banks wishing to do banking business in India should be required to take out a licence from the Reserve Bank. Licences should be freely granted to banks already established. Every licence should be in force for a stated period and should be automatically renewed if the licensing authority is satisfied that the provisions of Indian law applicable to the banks and other conditions specified in the licence are complied with.

(7) The conditions of the licence should be the following :—

(i) Furnishing to the Reserve Bank annual statements showing their assets and liabilities relating to the Indian business as prescribed by the Reserve Bank from time to time.

(ii) Submission for a few years to come, at any rate, to some prescribed authority in India, preferably the Reserve Bank, periodical reports of Indian and non-Indian business handled by them.

(iii) Other conditions imposed on basis of reciprocity.

(8) The appointment of Local Advisory Boards at each branch of the exchange banks is supported.

(9) The exchange banks should consider the introduction of a scheme of probationary assistants in their banks on the model of the Imperial Bank of India scheme.

(10) Such of the Indian Joint Stock banks as are well-established should open foreign connections useful to their clients.

(11) On the establishment of the Reserve Bank and the simultaneous withdrawal of the restrictions now imposed on the transactions of foreign exchange business of the Imperial Bank of India, the latter should be induced to take an active share in the financing of India's foreign trade. For this purpose a definite arrangement between the Reserve Bank and the Imperial Bank for a period of five years (or such other period as the Reserve Bank may consider desirable) for utilizing the Imperial Bank as agents of the Reserve Bank on terms to be settled between the two banks is recommended.

(12) If the Reserve Bank finds it impossible to arrive at a satisfactory settlement with the Imperial Bank of India or finds that within the stipulated period the Imperial Bank is unable to participate actively in the financing of India's foreign trade the establishment of an Indian Exchange Bank is recommended.

(13) The lines on which the new Indian Exchange Bank should be established are also suggested.

The Drugs Enquiry Committee.—In pursuance of the resolution, which was adopted by the Council of State in March, 1927, recommending the Governor General-in-Council to urge all Provincial Governments to take such steps as may be possible to control the indiscriminate use of medicinal drugs and to legislate for the standardisation of the preparation and the sale of such drugs, the Government of India, after consulting Local Governments and with their approval, appointed in August, 1930, a small committee consisting of Lieut.-Col. R. N. Chopra, I.M.S., Professor of Pharmacology, School of Tropical Medicine and Hygiene, Calcutta (Chairman); the Rev. Father J. F. Caius, S.J., Pharmacologist, Haffkine Institute, Bombay; Mr. H. Cooper, of Messrs. Smith, Stanistreet & Co., and Maulvi Abdul Matin Chaudhury,

M.L.A., (members) to explore and define the scope of the problem and to make recommendations as to the measures which should be taken with the following terms of reference :—

(1) to inquire into the extent to which drugs and chemicals of impure quality or defective strength, particularly those recognised by the British Pharmacopoeia, are imported, manufactured or sold in British India, and the necessity, in the public interest, of controlling such importation, manufacture and sale, and to make recommendations;

(2) to report how far the recommendations made in the preceding paragraph may be extended to approved medicinal preparations, other than those referred to above, and to medicines made from indigenous drugs and chemicals;

(3) to inquire into the necessity of legislation to restrict the profession of pharmacy to duly qualified persons, and to make recommendations.

The Committee has presented its report to Government but, so far, no official notification has been made of the action which the Government of India propose to take. I have called attention for several years in these reports to the need for legislation in India on the lines of the American Food and Drugs Act and the British Therapeutic Act in order to standardise the preparation and sale of drugs. Such legislation is urgently needed, not only to protect the consumer of drugs in India from the effects of consuming useless and in many cases deleterious products, but also to protect the legitimate manufacturers of preparations which are up to the standard of the British Pharmacopoeia from the unfair competition of their foreign and Indian competitors, who place on the market, at absurdly low prices, drugs the constitution of which is unknown and which bear no standard. It is hoped that we are now within sight of legislation which will remove this long-standing grievance of the British drug trade.

Road Development.—In my last report I gave a summary of the recommendations contained in the report of the Indian Road Development Committee, and an account of the action which the Government of India had taken on those recommendations. I also referred to the Conference which was held in April, 1930, when provisional programmes for the expenditure of the provincial shares in the Central Road Development Account were discussed. These were subsequently approved by the Government of India upon the advice of the Standing Committee of the Central Legislature on Roads.

The following schemes were approved by the Government of India :—

Bridging on important roads in Madras	(Rs.35 lakhs)
Improvements, connections and bridging on important trunk roads in Bombay	(Rs.60 lakhs)
Miscellaneous improvements in Bengal	(Rs.57 lakhs)
Reconstruction and improvement of important roads in the United Provinces	(Rs.43 lakhs)
in Bihar and Orissa	(Rs.40 lakhs)
General road development in the Punjab	(Rs.60 lakhs)
Bridging and improvement in the Central Provinces	(Rs.17 lakhs)
Bridging in Assam	(Rs.2 lakhs)

The first distribution of the revenue, obtained from the additional duties on petrol during the financial year 1929-30, took place in 1930-31 in the following proportions :—

	Rs. Lakhs.
Madras	13·0
Bombay	17·5
Bengal	13·5
United Provinces	4·7
Punjab	8·2
Burma	12·0
Bihar and Orissa	2·9
Central Provinces	3·1
Assam	1·8
Minor Administrations and States (Block grant) ...	10·2

In view of the present financial stringency the Government of India have, by a resolution in the Council of State and in the Legislative Assembly in September, 1931, obtained sanction to use as a temporary measure the provincial shares in the Road Development Account for expenditure on the ordinary maintenance of roads, on the condition that when the situation improves the amount borrowed for maintenance will be restored to the programmes of development which are at present held in abeyance.

Prior to the second Road Conference, held in September, 1931, Committees were appointed to deal with various questions and their reports were considered by the Conference.

Committee Appointed to Examine the Question of Standard Motor Vehicle Regulations for India.—In India the framing of regulations to control motor traffic is a provincial subject, local Governments having under Section 11 of the India Motor Vehicles Act, 1914, full powers to frame regulations. The result has been that while in framing regulations local Governments have had access to the regulations framed by neighbouring Provinces, there has been a considerable divergence in detail, which was alleged to be hampering to the user of motor transport without being required for any particular reasons. The Committee consisted of representatives of provincial Governments and States and had as its object, firstly, a discussion of the subjects which might be covered by uniform rules throughout India, and secondly the drawing up of standard model rules, covering those subjects, which might be

recommended to be made by local Governments. The Committee presented a unanimous report and also went a long way towards completing a draft of the model rules which they recommended; this draft is being completed by the Secretary and will be taken into consideration shortly.

Committee Appointed to Consider a Standard Basis of Motor Vehicle Taxation.—This Committee were concerned primarily with the taxation of the motor vehicle as opposed to the taxation of transport through *inter alia* a petrol tax. A vehicle tax may be imposed by Provincial Governments, whereas the petrol tax is a Central Government tax. The Committee considered whether existing taxes on vehicles could not be abolished and unified into a provincial motor vehicle tax to be imposed upon a standard basis throughout India. Various schemes were put forward and after discussion the Committee recommended that :—

> Motor cycles should be taxed at a flat rate for all classes of motor cycles, including three wheelers, up to 8 cwts. laden weight.
>
> All private cars should, if the tax level were low, be taxed at a flat rate regardless of size or weight, but if the tax level were high they should be divided into three categories by unladen weights. Public service vehicles whether taxis or buses should be taxed on the basis of registered seating capacity; and lorries should be taxed on the basis of laden weight.

Committee of Chief Engineers.—The Committee made certain recommendations regarding expenditure on research work in connection with road surfaces, and on the subject of heavy motor vehicles with particular reference to the loads to be carried by them, their speed and the tyres to be used. The Committee made no recommendation on the subject of the speed of private vehicles, but recommended that steps should be taken to secure, after due notice, the provision of approved speed governors on all public service and commercial vehicles.

The Road Conference, 1931.—The Road Conference considered the reports of the Committees. In connection with the report of the Committee on motor vehicle taxation, it did not appear to be possible for anything to be done, but in respect of the other two reports the Road Conference recommended them for consideration by Government. These reports will therefore be taken into consideration and certain action on the lines recommended may be expected to be taken before long. In particular the Road Conference endorsed the recommendation of the Chief Engineers that a sum of Rs.3 lakhs should be set aside for experimenting in improved road surfaces, but that, in view of the financial outlook, attention should be directed rather to low cost surfaces than to further experiments in expensive materials; but that in any event a

proper review should be made of all work done up to date in India, with a view to deriving the maximum benefit from the experience gained. The Road Conference also considered demands for special grants from the reserve with the Government of India, and approved certain proposals from which the Government of India are to make a selection of the schemes which may be financed according to the amount that accrues in the reserve. At present it appears probable that the reserve available for existing special work will amount to about Rs.40 lakhs only during the five year period and grants will usually be to the extent of about one-half of the total cost, the balance being found locally either from the provincial or States share in the road development account or from other sources. The schemes to be approved are generally of the nature of providing important bridges over waterways which at present constitute a serious interruption to traffic on all-India trunk roads, or in filling gaps which at present exist in roads of that nature, and also in providing bridges or filling gaps in subsidiary trunk roads. An early intimation of the grants to be given from the reserve is expected.

CHAPTER II.

AN EXAMINATION OF THE POSITION OF THE UNITED KINGDOM EXPORTER IN CERTAIN OF THE TRADES WHICH HAVE BEEN MOST ADVERSELY AFFECTED BY THE RECENT CRISIS WITH SPECIAL REFERENCE TO THE ADEQUACY OR OTHERWISE OF EXISTING SYSTEMS OF REPRESENTATION AND DISTRIBUTION.

Cotton Piecegoods.—From whatever angle it is viewed, the catastrophic decline in the imports from the United Kingdom of piecegoods since the war, and particularly during the crisis of the past eighteen months, strikes at the very heart of the British trade position in India. Of our total exports to India, cotton piecegoods in 1913/14 accounted for 48 per cent., or nearly one-half. In 1928/29 the proportion had fallen to one-third and in 1930/31 to one-fifth. The figure for the current year will be lower still. In 1913/14 the total imports into India of cotton piecegoods were 3,197 million yards, of which the United Kingdom supplied 97 per cent. and Japan 0·3 per cent. In 1930/31 the total imports had fallen to 890 million yards, of which the United Kingdom shipped 58·8 per cent. and Japan 36·1 per cent. Whereas in 1913/14 imports provided three-quarters and the Indian mills one-quarter of the machine-made cloth available for consumption in the country, in 1930/31 the Indian mills produced three-quarters and imports provided only one-quarter of the available balance for consumption. Of this one-quarter, the United Kingdom, as we have seen, supplied only 58·8 per cent. The phenomenal fall in the imports of United Kingdom piecegoods in 1930/31 by 724 million yards in

volume and over Rs.21 crores in value accounted for fully half of the reduction of Rs.42 crores in the British share of India's total imports. It may, therefore, be said to be mainly responsible for the unprecedented fall of 5·6 in the percentage share of the United Kingdom in India's imports of all kinds.

The facts of the present position are stated in great detail in Chapter VI, pages 139 to 165. It will be of value, however, to summarise the main factors which have contributed to this very serious state of affairs. These are :—

(1) The reduced purchasing power of the Indian consumer and the relative inelasticity of Lancashire prices.

(2) The nationalist movement in favour of " swadeshi " goods and its recent manifestation in the form of the boycott of United Kingdom cloth for political ends.

(3) Increased competition from Indian mills which has been stimulated (a) by tariff protection, (b) by the " swadeshi " and " boycott " movements, and (c) by the relatively high prices of Lancashire goods.

(4) Intense Japanese competition based on lower prices, which have had an irresistible appeal at a time of reduced purchasing power.

(1) The basic factor is undoubtedly the economic one viz. : that while the Indian consumer is only receiving 45 per cent. of pre-war prices for his jute, 93 per cent. for his cotton, 76 per cent. for his cereals, 80 per cent. for his hides, 114 per cent. for his tea and 82 per cent. for his oilseeds, he cannot afford to purchase the usual quantities of piecegoods, whether imported or Indian, at prices which are 21 per cent. *above* pre-war rates. Nor is this the complete picture. The cultivator, who is the ultimate consumer, has certain fixed cash payments such as rent, water rates, interest to the " Bania," &c., &c., which must be made whatever his gross income from the sale of his crops may be. This leaves his balance for the purchase of cotton cloth reduced to a greater extent than would be expected from the fall in the price of his agricultural products alone. Until, therefore, the relative prices of the cultivator's produce and of manufactured piecegoods change in such a manner as to increase his final balance for commodity purchases after deducting his fixed charges, there is little hope of any increase in the consumption of cotton piecegoods in India, whether imported or of local manufacture. As will be seen from the tables on pages 156-7 the consumption in India of mill-made cloth from all sources has declined from 4,210 million yards in 1913/14 to 4,183 million yards in 1929/30 and to 3,336 million yards in 1930/31, with a resulting reduction in *per caput* consumption from 13·29 yards to 12·04 yards and 9·49 yards. There are already signs in the Calcutta market that the purchases by dealers of Indian mill cloth have been overdone. The offtake is slowing-up and stocks tend to increase.

(2) While the long-period downward trend of imports of cotton goods from the United Kingdom is due to fundamental economic causes, there is no doubt whatever that the sharp fall since April 1st, 1930, is very largely attributable to the political boycott. An unprecedented slump in the piecegoods market in 1930/31 was inevitable on account of the severely restricted purchasing power of the country. The stage was therefore set for a most difficult period of trading when, in April, 1930, the boycott was launched by the Indian Congress, directed against all imported textiles in general and United Kingdom goods in particular. So widespread was the propaganda and such effectual coercion was brought to bear on cloth importers and dealers that, once the moderate imports of goods ordered before April, 1930, had been received, further arrivals were on a very small scale and forward purchases were reduced to almost negligible proportions. At the same time, it should be realised that the boycott would not have been so successful if the times had not been peculiarly propitious for its reception. Indian dealers were prepared to allow themselves to be coerced by political agitators in view of the fact that a postponement of the settlement of their commitments was to their advantage. They were only too glad of the opportunity to plead *force majeure* as a reason for not clearing their goods and for claiming concessions from suppliers in order to help them out of their difficulties. The closing of the markets under political pressure which prevented business being transacted with Lancashire has resulted in a healthy stock position at the present time. Had business proceeded in the usual manner, the market would probably now be faced with a recurrence of conditions somewhat similar to those of 1921/22, when it was flooded with stocks purchased at high rates with resulting repudiation of contracts and heavy losses all round. As it is, stocks of Lancashire piecegoods in India could, with a normal offtake, be cleared in 6 to 8 weeks and there has, so far, been very little repudiation of liability. This state of affairs is particularly fortunate in view of the heavy depreciation in the value of existing stocks due to the phenomenal fall in the price of raw cotton. To this small extent, therefore, the boycott may be claimed to have been a blessing in disguise.

On the other hand, quite apart from the unemployment and distress which has been caused in Lancashire on account of the closing and short-time running of mills, the boycott has brought such social persecution and general embarrassment upon dealers in Lancashire goods that many of them have been induced permanently to relinquish the business. Unfortunately, dealers have consistently lost money on their purchases of United Kingdom goods for some years and are therefore all the more susceptible to the pressure which is being brought to bear on them, on specious nationalist grounds, to abandon the trade. The dislocation of the usual channels of distribution throughout every link in the chain

from the importer at the port down to the village shopkeeper is one of the most serious results of the political movement and is likely to retard any improvement in the trade. A feeling of lack of confidence in Lancashire goods has been steadily growing during the past few years, not only among Indian importers and dealers, but also among many European merchant houses. They feel that the profits they make out of the trade are not commensurate with the risks they run. In the first place, competition has been, and is, difficult on account of the higher prices of the United Kingdom goods, and secondly, there is the ever-present fear of a revival of violent picketting and the chance of unsaleable goods being left on their hands. Where United Kingdom goods are of a type which has hitherto enjoyed a practical monopoly, the risk is not so great but in those cases where United Kingdom styles compete with Japanese or Continental, the merchant or dealer takes the line of least resistance and sells the foreign goods.

The sentimental bias in favour of " swadeshi " goods, which undoubtedly exists among large sections of the people, has received a great stimulus from the Congress agitation. Although there has been a suspension of more violent activities since the pact was signed in March, 1931, forceful persuasion by countless so-called " peaceful " means, such as threats of social ostracism and the 101 methods which are possible in this country, is proceeding in the upcountry towns and villages with undiminished vigour. The result is that the consumer in self-defence is turning to Indian-made goods and, so long as the agitation persists, he will continue to do so. So strong is the present movement that Indian mill products in many instances are commanding prices considerably in excess of those asked for Lancashire cloths of superior quality. This, however, can only be a temporary phase. The permanent feature, however, is that Bombay and Ahmedabad qualities will become established as the standard cloths on the market and it will be practically impossible to dislodge them.

(3) With reference to the competition from the Indian Mills, I would refer my readers to Appendix A on page 192 of my previous report, where they will find the most illuminating note, compiled by the Hon. The Commerce Member, regarding the increased duties on cotton piecegoods, which was submitted to the Assembly in March, 1930. Sir George Rainy draws the following inference from the figures he quotes :—

" Only about one-eighth of the imports from the United Kingdom compete directly with Indian goods, because in any class of goods which can be made from Indian cotton, the United Kingdom mills have been unable to face the competition of the Indian mills and have been gradually driven out of the market. They hold their own only in those classes of goods which cannot be made out of Indian cotton. British goods have been displaced by Indian goods during a period in which the shelter afforded by the revenue duty was 11 per cent. or less. In these circumstances, it seems impossible, after the duty has been raised to 15 per cent., that Lancashire should re-capture the market for those classes of goods which can be made from Indian cotton."

It is also clear from the figures that before the end of 1928/29 Indian dhooties had displaced a substantial quantity of Lancashire dhooties made from the coarser counts and that the United Kingdom had lost five-twelfths of her trade in coloured goods, partly to Japan but mainly to India.

Since these conclusions were drawn in March, 1930, the Indian mills have received the advantage of the additional 4 per cent. import duty as well as of the remarkable fillip which the boycott movement has given to all " swadeshi " productions. It is not surprising therefore that their total production advanced by six per cent. from 2,419 million yards to the new record figure of 2,561 million yards. The production of grey dhooties rose from 776 to 831 million yards; grey shirtings from 585 to 642 million yards; sheetings, T-cloths, &c., from 90 to 122 million yards, and khaddar from 124 to 175 million yards. As I stated last year, the United Kingdom trade in grey shirtings is doomed and that in the finer grey jaconets is likely to be severely curtailed on account of the substitution of less expensive cloths. There remains the formerly immense import of grey dhooties which has fallen from 806 million yards in 1913/14 to 486 million yards in 1928/29 and less than 170 million yards in 1930/31. During the four months ended July 31st, 1931, the imports were 33 million yards, and of these Japan shipped an increased quantity. Although the Indian mills (largely Ahmedabad) have hitherto confined their attention to the coarser styles of shirting dhooties made from Indian cotton, there is no doubt that they are determined to compete in the finer styles made from American and Egyptian raw material. Imports of American cotton amounted to 12,000 tons and of Egyptian to over 21,000 tons in 1930/31, while during the first four months of the current fiscal year the quantities were 13,800 and 6,279 tons respectively. The present narrow margin between the prices of the American and the Indian staple is acting as a great stimulus to the use of imported cottons. It would appear, therefore, that there will be a rapid encroachment on the part of Indian mills into the medium-fine styles of grey dhooties which, combined with the tendency towards substitution of the coarser for the finer qualities, owing to restricted purchasing power *plus* Japanese competition, will result in a permanent decline in the Lancashire dhootie trade.

So far as plain bleached goods are concerned, there is very little competition from Indian mills, but their productions of bleached cloths with coloured woven stripes compete with certain imports of coloured goods. The production of coloured goods in the mills declined from 604 million yards in 1929/30 to 557⅓ million yards in the year under review. For further details with regard to local production reference should be made to Chapter VI.

(4) *Japanese Competition.*—Although Japan has suffered from the economic depression in India, she has been able to turn the

boycott of United Kingdom goods to her own advantage and has increased her share of the total trade to 36 per cent. The policy of standardisation on certain types of grey shirtings, &c., produced by the Toyoda automatic looms has enabled Japanese manufacturers to surmount the enhanced tariff and to land their goods in India at prices far below those of Lancashire makers; at rates, in fact, which are seriously competing with the Indian mills. These low prices have met the needs of the impoverished Indian consumer with the result that Japanese goods have been cleared in spite of a boycott ostensibly directed against them also. In 1930/31 imports of Japanese grey goods for the first time exceeded, both in quantity and value, those from the United Kingdom, while during the first four months of 1931/32, imports of Japanese grey goods were 68 million yards as compared with 25 million yards from the United Kingdom.

The most serious feature of Japanese competition, however, is their incursion into the trade in bleached goods, which had hitherto been a monopoly of the United Kingdom. In 1928/29 Japan supplied 1 per cent. of the value of bleached goods imported, in 1929/30 2·5 per cent., in 1930/31 8 per cent., and in the first four months of 1931/32 no less than 13·8 per cent. Japanese qualities of white shirtings, drills, jeans and nainsooks are becoming established and even white mulls are now being placed on the market. A recent Calcutta market report states that it is becoming extremely difficult to sell nainsooks of United Kingdom manufacture in competition with the attractive rates at which the Japanese products are available, but United Kingdom varieties of standard mulls still predominate.

The imports of Japanese artificial silk products in 1930/31 accounted for 71 per cent. of the whole trade and, as I have stated elsewhere, Japanese standard artificial silk taffeta and other qualities are now being substituted for many items of coloured cotton cloths on account of their phenomenally low price. By importing pure artificial silk cloths in bright colours and attractive designs at prices as low as 4 to 5 annas per yard, the Japanese are gradually effecting a revolution in fashion in favour of artificial silks as against printed and dyed cotton goods. In the first four months of the present fiscal year imports of artificial silks from Japan accounted for 86 per cent. of the total, the United Kingdom supplying 2½ per cent.

Japanese competition is based simply and solely on the price factor. Just as Mr. Henry Ford realised the world's needs for a standardised transport vehicle at the minimum possible cost, so the leaders in control of the highly-centralised and closely-knit cotton industry of Japan have realised the need throughout the East for standardised cloth at rates which are within the limit of the restricted purchasing power of the impoverished masses of India,

China and Africa. Although Japanese manufacturers are not prepared to meet the demands of thousands of dealers for a multiplicity of dimensions, designs, shades, borders, headings, &c. which have, in the past, prevented their Lancashire competitors from securing long runs of production, nor are they prepared to grant extended terms of credit or other exceptional facilities to their clients, they have forced their way into the market by offering an article which the masses could afford and which importers and dealers—whatever their own interests and prejudices might be—have been forced to stock and sell. Even the Indian mills are suffering most severely from Japanese competition in plain goods and it is probable that they will before long submit representations for additional tariff protection against them.

It will now be convenient to deal with the questions of representation and distribution. Hitherto, the textile trade in India has been the best organised of all import trades. The most wealthy and important import merchants, both European and Indian, have employed trained staffs in their piecegoods departments and in many cases have devoted their whole capital and energies to the trade. The Indian guarantee brokers and dealers in the principal distributing centres are the wealthiest and soundest of their class, and a highly specialised organisation has been built up extending from the purchase of the goods in Manchester and elsewhere to their final distribution in the village of India. A variety of methods of distribution have been in vogue. These include the few powerful firms who undertake their own purchasing, converting and packing in their Manchester warehouses and sell the goods through their branches in all the principal Indian distributing centres. Then we have the European importers purchasing from Manchester shipping merchants and selling to the Indian dealers. Since the war there has also been a growing tendency for Indian importers to deal direct with Manchester shipping merchants and a considerable portion of the trade is conducted by this method, which involves certain risks in times of crisis. There are also two or three Manchester shipping merchants with their own branches in India and, lastly, we have two or three East Lancashire manufacturers of dhooties and other staple grey goods who either maintain an office in Calcutta or else visit the market each cold weather selling their products direct from the mill to the Indian importer without any intermediary whatsoever.

If we examine the distributing methods of our competitors we do not find any novel or more efficient systems. The Japanese manufacturers sell a large portion of their goods through half a dozen powerful Japanese merchants established in Bombay and Calcutta, who hold stocks and sell ex godown for cash. The remainder are shipped by merchant houses in Japan against orders from Indian importers, confirmed bankers' letters of credit being frequently insisted upon. The goods are usually financed through

the Japanese banks, who have branches in India, and the drafts are at the usual usance of sixty days sight D/P. These methods do not disclose any improvement on the United Kingdom system. Similarly, Italian, Swiss and German shippers either sell their goods through the medium of European merchants at the ports or —more usually—by direct shipments to importers in the bazaars. It cannot, therefore, be maintained that our Japanese and Continental competitors enjoy advantages derived from improved methods of distribution. So far as the Indian mills are concerned, the functions of sales and distribution have, until the past year, been very largely neglected and the selling organisation, both in the home market and overseas, has been most primitive and fortuitous. This was clearly emphasised by the Indian Trade Mission to the near East and Africa in 1928, who recommended that improvements should be made in the finish, packing, sampling and making-up of Indian textiles and that the millowners should establish a combined selling organisation. Very little was done until 1930, when the Bombay Millowners' Association promoted the formation of the Bombay Mills Cloth Selling Agents Association and took other steps which are outlined on pages 154-6. The Indian mills appear to rely upon their protected position and the assured demand for their products from motives of national sentiment and political feeling rather than upon the efficiency of their distributing organisation.

The reason for the success of our Japanese and Continental competitors lies, simply and solely, in their ability to quote lower prices. As evidence of this, I would cite the case of Lancashire manufacturers of grey dhooties and shirtings who bale their goods at the mill, effect the shipping themselves, and sell direct to some of the most influential Indian importers in the Calcutta bazaar. These firms during the past few years have been consistently undersold by their Japanese competitors in spite of the fact that the method of distribution is the most economical which can be devised. The remedies, therefore, should be sought in the rationalisation of the Lancashire industry and in the concerted efforts of the Joint Committee of Cotton Trade Organisations rather than in any sweeping change in the method of distributing the goods in India.

At the same time, it must be admitted that the events of the past eighteen months have imposed a great strain on those merchants, Indian and European alike, whose interests are concerned with the sale of United Kingdom textiles. When the crisis is past it will be found that several European importers have discontinued the business and that great numbers of Indian importers and dealers at the ports have either failed or merely closed down their trade in United Kingdom goods as they find it to be unprofitable. It is still difficult to assess the effect of the recent agitation on the vast network of Indian distributors upcountry, but there is no doubt that the whole organisation has been severely shaken and that it will

emerge from the crisis attenuated in numbers and with reduced strength and influence. It is axiomatic that unless a trade provides a profit commensurate with the risks involved, it is useless to the merchant, no matter what his race or political views may be. The recent Government Mission sent to the Far East by H.M. Government in the United Kingdom, pointed out the inherent weakness in the fact that there are in China and Japan no distributors of Lancashire goods who are directly concerned with the production of those goods. A very similar state of affairs obtains in India where, with one or two important exceptions, the distribution of our goods is in the hands of merchants who are perfectly ready to place their organisation and facilities at the disposal of Japanese, Continental or any other suppliers, when their goods command a readier sale or provide a wider margin of profit. At the present time a considerable number of the principal European importers in Calcutta are dealing in Japanese goods and are extending their connections in Japan and also on the Continent of Europe. Many Indian importers, who hitherto confined their purchases to Lancashire qualities, have now decided that they cannot afford to wait until Lancashire prices are reduced and the boycott movement subsides or until they can make offers for quantities sufficiently large to induce a manufacturer to restart his mill. They are therefore turning to the sale of Japanese and Indian mill goods. *It should be realised that unless steps are taken very quickly to re-establish the competitive power of United Kingdom goods we shall lose the valuable co-operation of many efficient distributing organisations upon which we have relied for more than half a century.* Meanwhile, Manchester merchants appear to be losing that close touch with the Indian situation which has been so valuable in the past. Travellers no longer visit India, correspondence falls off in these difficult times and, to an observer on the spot, it sometimes appears as if the greatest single export trade in the world is gradually being allowed to " peter out " no active measures being taken to deal with the situation. I was recently informed by the senior of one of the most important British import houses in India, whose connections with Lancashire have been particularly close for well over fifty years, that he had been able to clear his whole stock of Lancashire goods without very heavy loss and that his brokers were offering new business which, in normal circumstances, he would have had no hesitation in taking. In view of the uncertainty of the situation and of his lack of confidence in the future, he had deliberately declined to entertain this business (which would have been most valuable to Lancashire in these difficult times) as he was able to employ the firm's capital to better advantage in other directions. This statement, which was made in July, 1931, illustrates the weakness of our present position more clearly than anything else that I can usefully report on the subject.

And what of the future? It is inevitable that the Indian mills will encroach to a rapidly increasing extent upon the finer types

of plain fabrics as they use more and more American and Egyptian cotton for the spinning of finer yarns, for which many existing plants and almost all the new mills are being equipped. Their competition, therefore, cannot now be said to be limited to the types of cloth which can be manufactured from Indian cotton. The trade in plain grey goods has already passed either to India or to Japan with the exception of fine jaconets, the consumption of which is curtailed owing to the high incidence of the 3½ annas per lb. minimum import duty. The valuable trade in bordered dhooties is being threatened both by the Indian mills and Japan and will also be affected by the tendency in India to spin finer. Having once appreciated the effects of protection, the Indian millowners, as time goes on, are likely to appeal for further fiscal assistance as the increased range of their productions brings them in further conflict with imported goods. Whether they will have the same influence in a future Federal Legislature, where the representatives of the consumers will probably be more vocal and where, it is to be hoped, racial considerations will no longer be an important consideration, remains a moot point, but there is little doubt that a self-governing India will take full advantage of her fiscal autonomy in order to promote her industries. It seems likely, therefore, that the vast trade in imported grey goods will in future be reduced to the finer styles of dhooties and jaconets which are not manufactured either by India or Japan. This blow to our trade in staple greys is particularly unfortunate in view of the fact that the efforts which are being made in Lancashire by the Joint Committee of Cotton Trade Organisations to standardise on certain qualities of grey goods and to adopt all possible means of reducing prices, e.g. by the greater use of Indian cotton, automatic looms, &c., &c., have as their main object the revival of this trade. Lancashire may find that, having by dint of rationalisation, regained her competitive power, her efforts to regain a footing in the Indian market may be frustrated by the fiscal policy of an autonomous India.

So far as bleached goods are concerned, the future menace lies in Japanese competition, which is rapidly embracing a very wide range of styles, and which will undoubtedly tend to increase in spite of the handicap of an extra 5 per cent. in duty. As this is the only section of the trade which is still firmly held by Lancashire and as it constitutes our principal hope for the future, it is highly desirable that every possible effort should be made to study and grapple with the new competition. The trade is a vast one—571 million yards valued at Rs.17½ crores (£13,000,000) in 1926/27, but reduced to 271½ million yards valued at Rs.6 crores in 1930/31. So far, however, there has been no sign in India of any special effort being made on the part of the manufacturers or bleachers concerned to cope with the new factor.

It is difficult to forecast future developments in the coloured goods trade, which is so largely affected by changing fashions.

We have already noticed the inroads which have been made by the substitution of Japanese pure artificial silk goods for many styles of dyed and printed cottons. Whether the Japanese will be able to continue to land their standard qualities in India at prices as low as 4 annas per yard is still uncertain but, at the present time, these rates are completely disorganising the market. The falling-off in imports of prints and coloured woven goods has been much more serious than the reduction in the case of goods dyed in the piece. Meanwhile the project for the establishment in Bombay of a combined bleaching, dyeing and printing works still hangs fire and, as will be seen in the statement on page 155, the Bombay Millowners' Association do not consider the present to be an opportune time but are of opinion that the scheme is capable of adoption when trade conditions improve.

The picture which I have drawn may appear to some to be an unduly gloomy one and I may be accused of being unconsciously influenced by the entirely abnormal situation during the past eighteen months which has resulted from the economic depression and the boycott agitation. I admit that both these factors are transitory, but their effects will be felt for many years and recovery will be slow. Taking all circumstances into consideration, it will, I think, be conceded that the United Kingdom textile industry must face a permanently reduced trade in the Indian market. It will be many years before we can expect to regain even the volume of our exports in 1928/29. The only hope for the future lies in such an improvement in the standard of living in India as will materially increase the demand for those finer fabrics, in the production of which Lancashire is still pre-eminent. For this we must mainly rely upon the greater prosperity of the urban population. The Indian ryot, in common with the peasants of other Eastern lands, will be clothed almost entirely by the products of his own country.

Iron and Steel.—The iron and steel trade has been only slightly affected by the political movement but has suffered severely from the curtailment of Government and industrial programmes and also from the restricted purchasing power of consumers of galvanised sheets on account of the slump in jute. After attaining the record figure of 1,197,000 tons in 1927/28, total imports declined to 973,000 tons in 1929/30 and shrank to 622,000 tons last year, the British percentage being reduced to 44, while the shares of Belgium and France advanced to 33·7 and 4·7 per cent. respectively. All available details with regard to the trade are given in Chapter VI. The most disturbing feature is the phenomenal reduction in the imports of British galvanised sheets from 286,046 tons in 1928/29 to 200,295 tons in 1929/30 and 91,373 tons in 1930/31. This downward trend synchronised with an increase in the Belgian trade from 32,063 tons in 1928/29 to 50,974 tons in 1929/30, which was only reduced to 48,150 tons in 1930/31. Belgian competition in 1930 brought the price down to £11 15*s*.

per ton c.i.f. Calcutta, representing the lowest quotation for thirty years. The Belgians now largely dominate the sheet market in Bombay, but have so far been unable to make great headway in Calcutta. Since the increase last year of the protective duty to Rs.67 per ton, the competition of the Tata Iron and Steel Co. is likely to be much more serious. Their tonnage output in 1930/31 was only 26,450, but considerable extensions are planned. So far, the marketing of British sheets (amounting in 1928/29 to over Rs.6 crores in value) has been left entirely in the hands of British merchants in London and India, *two or three of whom have already placed all their facilities at the disposal of the Belgians and are in fact, largely responsible for the development of Belgian competition.* The time has come when the leading United Kingdom sheet makers will be obliged to exercise some supervision over their marketing in India, avoiding—if possible—any dislocation of the business of those merchants who are loyal to them. I have, for some time, advocated the formation of a branch of the British Sheetmakers' Association in Calcutta for intelligence, control and propaganda purposes. These activities might be extended by the establishment of central stock depots at Calcutta and Bombay, from which the merchant distributors might always rely upon being able to draw their requirements of the several brands. Such a departure would enable sheet rollers in the United Kingdom to keep in touch with the developments of the market, would ensure the maintenance of adequate stocks, and would tend to reduce excessive local price fluctuations. This is not the place to discuss the advantages of the establishment by United Kingdom interests of a sheet mill in India, but in view of the magnitude of our interests in this trade and of the serious threat to them caused by the high tariff and Belgian competition, such a development would appear to be inevitable.

United Kingdom rollers of structural sections, plates and bridgework are on the whole maintaining their share of the trade so far as British standard steel is concerned, but are finding Belgian, German, French and Luxemburg competition very acute in steel bars and other items for the bazaar trade in which the British standard specification is not insisted upon. The Tata Steel Works are competing keenly in all sections of the trade and are now in a position, not only to supply practically the whole of India's requirements of railway rails and accessories, but also to roll nearly every section required—whether it be to the British standard or not. The recent awards of contracts for the steelwork in large bridges such as Bally and Sagaing show the severity of the competition with which we are faced. Although United Kingdom bridge builders of world-wide repute are strongly represented in the country, they find it almost impossible to secure the large contracts in view of protective import duties and also—a much more intangible handicap—of the expressed desire of the Government of

India to retain as much work as possible in India. A United Kingdom tenderer for an Indian Government contract such as a bridge cannot now count upon receiving the order merely because his is the lowest satisfactory tender, which may even be recommended for acceptance by the Engineer in charge of the work. If his competitor is an Indian firm, the Government of India Authorities may use the discretion, with which they are now armed, and award the tender to a local firm with the object of assisting Indian industry. Moreover, penalties are rarely, if ever, enforced against Indian contractors for undue delays and other infractions of the contract. In these circumstances, it is not surprising that certain United Kingdom contractors prefer to extend their activities in other parts of the world, where they consider that they receive fairer treatment.

The most satisfactory solution of many of our difficulties in India would be a mutual *rapprochement* between the steel industries of the United Kingdom and of India with the object of preventing overlapping of effort, a mutual arrangement of rolling programmes, delimitation of markets and combination against foreign competition. From such a form of rationalisation on Imperial lines, the industries of both countries would receive great advantages, foreign competion would be checked, prices would become more stabilised and the consumer would be better served.

Government Stores and Railway Material.—The special requirements of this valuable trade are dealt with at length in Chapter III, from which it will be noted with satisfaction that United Kingdom suppliers are meeting the changed situation created by the inauguration of the rupee tender system by opening branch offices and service organisations, floating separate limited liability companies in India, attaching experts to their technical agents and in other suitable ways. The difficulties of catering for Government requirements are increased owing to the fact that the declared policy of the Government of India as laid down in the Stores Rules is " to make their purchases of stores for the public service in such a way as to encourage the development of the industries of the country to the utmost possible extent consistent with economy and efficiency." It is further laid down that " Departments of the Government of India, or officers specially authorised in this behalf, may, when they are satisfied that such a measure is justified, allow a limited degree of preference in respect of price to articles produced or manufactured in India in whole or in part." Consequently, over and above the protective Customs duties levied at the ports, Indian industrialists enjoy a further protection, of an unstated amount, when tendering for Government contracts. As we have seen in the case of steel bridgework for railways, while this provision may give a stimulus to existing Indian industries and to the erection of new works in the country, it also operates unfairly to many United Kingdom firms who are

in a position to supply Government requirements on most economical and advantageous terms. One or two suppliers have overcome the difficulty by erecting works in India and then successfully claiming both fiscal protection and also advantages in tendering for Government requirements. It must be admitted, however, that Indian political feeling favours discrimination against such United Kingdom-owned industries and, unless it is possible to safeguard their interests in the forthcoming political settlement, they run the risk of discriminatory treatment at the hands of an autonomous Government of India.

A further difficulty resulting from this policy of using the purchase of stores as a lever for the encouragement of local industries is the tendency towards the lowering of the standard of quality of the stores purchased in order to enable Indian manufacturers to quote. The following statement of the Director-General of the India Store Department, London, in his report for the year 1929/30 is interesting in this connection :—

"Instances occur where material differences are apparent between the qualities of goods purchased through Indian merchant firms and those previously bought by this Department. An inspection certificate is issued for every consignment, and whenever desirable a note is entered on the certificate indicating the relative quality of the consignment as compared with the standards hitherto demanded by this Department. It must be understood that the Department is necessarily bound by the conditions of the order placed in India and is unable to reject supplies which, though below the standard previously required, are still within the terms of the specification or description on which the contract is based. "

The insistence on the factor of low price in the placing of Government contracts is very disturbing to manufacturers who have supplied stores to the Indian Government for years and who have built up their reputation on the basis of quality and reliability. Such firms, very naturally, feel most acutely the placing of contracts, on a price basis only, with Indian or foreign firms, whose goods may be comparatively unknown or may have merely passed the tests in India. This constant emphasising of the basis of low price must inevitably involve low quality also or, to use the term employed in the Stores Rules, " quality sufficiently good for the purpose." It also neutralises the goodwill resulting from long years of association with India's particular requirements and reduces all considerations to one dead level of cheapness, thereby penalising the specialist contractor and opening the door wide to any foreign firm, who may be on the Department's list and who may be prepared to " cut in."

For some years United Kingdom suppliers have been urged to expand their Indian organisation in order to be in a position to give as efficient service to the purchasing departments in India as their Head Offices have rendered for so many years to the Director-General of Stores in London. This, of course, entails increased,

expenditure to cover the overhead charges of the Indian organisation. The officials of the Indian Stores Department are usually most reluctant to make any allowance for the additional cost of this technical service and endeavour to obtain the same prices as would be quoted in London *plus* the bare freight, insurance, importing and landing charges.

In these times of enforced economy when all that a country such as India can afford is " quality sufficiently good for the purpose," difficulties such as I have outlined are bound to arise. On the whole, however, the rupee tender system may be said to have, so far, worked without imposing undue strain or hardships on United Kingdom suppliers.

Electrical Machinery and Plant.—The imports have not so far been affected either by the economic crisis or by the political agitation. The efficient branch organisations, which are maintained in India by the leading United Kingdom manufacturers, keep in close touch with all developments and render excellent services. The British percentage is maintained at 76. During the past few years valuable orders have been received for railway electrification schemes and hydro-electric projects but these are now nearing completion and the disinclination of the Government of India to embark on large capital works in these times of financial stringency will probably create a temporary lull in activity during the next year or two. There is also likely to be a reduced demand from private power companies for similar reasons of finance. Mention should be made of the activities of American financiers through the medium of an Indian Company, which has recently been formed for the purpose, in obtaining a controlling interest in power supply companies in Western India. The Poona Supply Co. has already been purchased, the control of the Karachi undertaking has also been acquired, and one or two other interests are threatened. An allied group of American financial interests now share with the Tata Co. the managing agency of the powerful Tata Hydro-Electric group of companies which supply the bulk of the power to the Bombay mills. It would appear therefore that, before long, American interests will have secured control of the whole chain of important power supply units extending from Bombay to Karachi. In view of the close connections which exist between these American entrepreneurs and the International General Electric Company, United Kingdom manufacturers' representatives in India are viewing these developments with some concern.

Industrial Machinery and Millwork.—Before the war the United Kingdom supplied 90 per cent. of India's imports. This proportion has now been reduced, on account of American and German competition, to just under 75 per cent., at which figure it remained steady during the past two years. The first four months

of the present fiscal year April-July, 1931, show a very heavy reduction in United Kingdom imports and an increase in the share of Germany; this confirms the forecast made in Chapter VI that United Kingdom manufacturing engineers will have to face a lean year owing to the curtailment of Government purchases, the virtual completion of most of the principal public works projects and the unprecedented depression in India's industries, which precludes extensions and renewals for some time.

United Kingdom makers are holding their own in the supply of textile machinery notwithstanding the strong anti-British political movement in Ahmedabad and Bombay. It is expected that they will obtain their usual share of the orders resulting from recent mill extensions at the former centre. The imports of prime movers, notably oil engines, have declined by one-half in the first four months of the current year, while arrivals of railway locomotives have fallen from Rs.59 to Rs.19 lakhs. The trade in boilers also reflects the severe industrial depression. Machine tools are suffering from the lack of railway workshop orders and from the general slackness. There has been an improvement in the imports of oil crushing and refining plant coinciding with enhanced German shipments, but arrivals of mining machinery, rice and flour milling plant, sewing machines and tea machinery show material reductions.

It may generally be stated that with few exceptions, United Kingdom machinery manufacturers are adequately represented in the Indian market. The tendency for many years has been either to operate branches of their own, staffed with trained engineers and erectors, or to attach an expert to the staff of their mercantile agents. One or other of these methods is almost imperative if the Indian business is to be adequately dealt with and provided that the turnover warrants the expense. The Indian industrialist is now branching out into many highly complex industries and is determined to have the most highly scientific advice and to purchase the latest and most improved types of plant which are obtainable. There are scarcely any firms of consulting engineers available. The trained managers of the branch offices of United Kingdom engineering and machinery firms have, in the past, filled this gap and have rendered, gratuitously, invaluable services to Indian industrialists. This help will be required more than ever in the future. The manufacturer who is prepared to advise his client on the spot as to the layout of a scheme, to draw up specifications, and to furnish the fullest technical information will have, as a rule, the first call on an order, irrespective of whether that order is placed locally with him or in London direct with the works. The leading machinery merchants in India usually employ one or more trained engineers to look after their business, but these men cannot be fully conversant with the productions of all the United Kingdom manufacturing firms they represent and their general

services and local knowledge require to be reinforced by the services of specialists from the works. The manufacturer who is prepared to strengthen his local organisation in this way will be placed in an impregnable position as compared with his competitors, who either remain in England or are represented in India by mercantile agents with little or no technical knowledge of the specialised machinery requiring attention.

In the case of large plant, such as watertube boilers, waterworks and pumping installations, electrical and steam power plants, pipelines, electric transmission systems and cables, and complete installations of industrial machinery such as flour mills, rice mills, saw mills, oil mills, sugar refineries, paper mills, chemical works and by-products plants, &c., the necessity for economical and efficient erection is paramount in a country with peculiar climatic and other conditions such as India. Considerable waste of money and dissatisfication has been caused in the past in cases where machinery has been purchased in London by officials and merchants with little knowledge of local conditions and where mistakes have been made both in the design of the plant and in the erection of it. It must always be remembered that, speaking generally, engineers in India, whether they be in Government, Municipal or private employ, are mainly occupied with administration and maintenance work and are, therefore, usually out of touch with the latest engineering practice. Indian labour is also, comparatively speaking, unskilled, and requires constant and expert supervision. The United Kingdom manufacturer, therefore, who is prepared to maintain an erecting staff in conjunction with his selling and technical organisation in India will not only be placed in a strong position *vis-à-vis* his competitors in his securing of orders, but will be able to effect considerable economy and give satisfaction to the purchaser by quoting for the complete plant, erected and in running order, thereby making an efficient job and establishing his position for renewals and further extensions.

Mill and Engineering Stores.—The trade in mill and engineering stores for the jute and cotton mills, engineering works, collieries, tea gardens, and the various other industries which are established in India is already a very valuable one and is likely to expand steadily. A very large proportion of the requirements of these industries, particularly in Bengal, where the firms of managing agents are usually British, is purchased through the London and Glasgow offices of the managing agents, and this largely accounts for the predominant position of United Kingdom suppliers. During the past few years, however, the tendency has been to purchase in Calcutta, Bombay and other large centres from local merchants, who specialise on this type of business and maintain stocks. There are many such merchant houses of good standing who are prepared to undertake additional agencies for

manufacturers of such items as paints, belting of all kinds, packings, bobbins, leather specialities for textile mills, wire ropes, high speed steel and Sheffield specialities, tools, oils, chemicals, &c. They usually buy outright for their own account and resell from stock, the trade being financed either by cash against documents in London or, more usually, by 30, 60 or 90 days' sight drafts, documents against payment. It is to be hoped that United Kingdom manufacturers, who are still unrepresented in India, will take steps to place themselves in touch with reliable merchant firms engaged in this trade. Suitable names together with further particulars may be obtained from the Department of Overseas Trade.

Competition from the United States and Germany is keen and tends to increase. Both these competitors, while suffering from the reduced turnover, have been able to take some advantage of the recent political bias against United Kingdom goods. Thus, American belting is now being sold to the Ahmedabad mills, while German mill stores of all kinds are being purchased in increasing quantities in both Bombay and Ahmedabad. This development, however, is only partly due to the boycott as the low prices of German stores have been attractive at a time of restricted purchasing power. The movement has not been so noticeable in the Calcutta market, where considerations of quality and suitability for the purpose are carefully weighed when testing prices.

Liquors and Provisions.—These valuable trades which accounted, even during the past depressed year, for a combined import of over £6,000,000 sterling have not been affected by the boycott agitation to any appreciable extent, but are naturally suffering from the depression with its concomitants of reduced incomes, of unemployment among the European and Anglo-Indian communities and of restricted purchasing power on the part of the Indian clientele. It is likely that the full force of the slump will be felt during the current year, when the effects of the greatly enhanced import duties on wines and spirits, beer and provisions, which were imposed in March last, will have become apparent. During the months of April-July, 1931, imports of all liquors fell from Rs.106½ lakhs to Rs.77 lakhs and provisions and oilman's stores were reduced from Rs.153 lakhs to Rs.111 lakhs. United Kingdom shippers are holding their ground in a satisfactory manner, thanks to their efficient methods of representation, which I will now outline:—

The distribution of both liquors and provisions is largely in the hands of powerful merchant importers in the principal ports who buy outright for their own account, and, in addition, frequently hold agencies for leading United Kingdom, French and American firms. They act as catering contractors to railways, hotels, clubs, and messes, supply retail to the European community, and wholesale to the bazaar dealers for the Indian demand.

In addition, there are one or two firms of commission indent merchants in each port, who specialise on the bazaar trade. Indents are collected by their brokers and are then sent home for execution, the importing merchant usually retaining a commission of 2½ per cent. for his services. The drafts are either drawn on him direct or else on the bazaar dealer with the importer as a " case of need." These merchants also accept agencies for United Kingdom manufacturers and well-known exporters, usually on a 5 per cent. commission basis.

One or two of the leading distillers and wine and spirit factors also have their own depots in Calcutta and Bombay, whence they supply the wholesale trade only. Other exporters, both of liquors and provisions, whose brands are well known in the market, do not confine their sales to any one firm of agents, but accept indents from all sources and are often willing to draw on the leading bazaar dealers as well as on the European firms. In the case of small Indian dealers, however, they find it safer to insist on their indents being transmitted through a reputable European house, who will act as a " case of need." Travellers are sent out to India each cold weather, who visit all purchasers, effect sales, investigate complaints and such questions as infringements of trade marks, show new brands, and return home in the summer to report to their principals on the state of the market, changes in demand, and the financial status of their various clients. This is, undoubtedly, the most satisfactory form of representation in the case of established and well-known brands.

My advice to British exporters of wines, spirits and provisions, who have hitherto not had experience of the market, would be, firstly, to place themselves in touch with the London Houses of the leading importing firms in India in order to learn whether their goods are saleable in this market. This should be followed up by sending out ranges of samples with full information and c.i.f. prices in sterling, the goods being made up and packed in accordance with the views of the importers. A detailed report having been received from India, the exporter could then consider whether he should appoint importing firms as his sole agents for the different markets, or whether he should sell in the open market and rely upon his own travellers to look after his interests. If the goods are novelties or are articles which are likely to find a very wide sale, the latter method would probably be the more advantageous. On the other hand, if the line is an ordinary one, he would probably be well advised to appoint leading importers in each centre as sole agents. He will also find that the larger and more influential importers will naturally not go to the trouble and expense of introducing new brands unless they are recompensed by a sole agency agreement for a term of years. In the case of manufacturers of well-known brands, who produce both the high qualities for the European demand and also the lower-priced

grades for bazaar requirements, it may be desirable to divide the agency on these lines, and to appoint a leading firm of European retailers for the superior brands, and a commission indent house for the bazaar trade. In any case, it is always advisable, after the goods have been placed on the market, to send out a travelling representative to report on the conditions and to conduct general propaganda work.

Soap. —As will be seen from the analysis on page 203 imports of household and laundry soap fell from 383,656 cwt. to 287,127 cwt. and those of toilet soap from 50,862 cwt. to 32,354 cwt. during the year 1930/31. This downward movement has been continued during the months of April-July, 1931, when arrivals of household and laundry varieties fell from 118,806 to 112,160 cwt. and of toilet soaps from 12,826 to 11,798 cwt. The British share in the value of the total soap imports remained unchanged at 87 per cent. in the last two years, but during the first four months of the current fiscal year it stood at 83 per cent. as compared with 90 per cent. in the corresponding period of 1930. There is no doubt that the boycott campaign contributed to the reduction in imports from the United Kingdom particularly in the Bombay market, which is an important one. Although the British varieties were not displaced by other foreign makes, the movement towards the increased local manufacture of substitutes received a great fillip. " Swadeshi " soaps have hitherto been mainly produced on the Malabar Coast but, during the past year, the manufacture of " so-called " soap has been undertaken all over India and has contributed to a consequential increase of 42,000 cwt. in the imports of caustic soda. No modern soap-making plant has yet been established and it is confidently expected that, when trade improves, United Kingdom makers will regain their position, which is firmly based upon cheap and excellent products suited to the needs of the market together with an efficient marketing and propaganda organisation.

Heavy Chemicals.—One of the most satisfactory features of the recent crisis is that the steadily increasing market for chemicals has been very slightly affected. The total imports were only reduced from Rs.279 to Rs.261 lakhs in 1930/31 and, in the first four months of the current year, they actually rose from Rs.93 to Rs.93¼ lakhs owing to considerably increased imports of two United Kingdom specialities—carbonate of soda and caustic soda, which offset reductions in the case of sulphur, potassium compounds, acids and disinfectants. The increased activity in the Indian textile industry is reflected in heavier imports of bleaching powder. The British share fell last year from 57 to 54 per cent. while that of Germany rose from 15½ to 18½ per cent. German competition is keen and the market is very largely a battleground

for the United Kingdom and German groups, each of which disposes of an efficient and widespread marketing organisation. The recently imposed protective duties on hydrochloric, nitric and sulphuric acids, alum, aluminium sulphate, copper sulphate, magnesium sulphate, sodium sulphate, sodium sulphide, zinc chloride and magnesium chloride, will stimulate the nascent Indian chemical industry, but the market is so vast and capable of such expansion, as science is applied to agriculture and industrial development becomes widespread, that there would seem to be ample scope for the products of both the Indian and the United Kingdom industries. The entry into the market last year of trial shipments of Russian alkalies, which are being widely distributed by the depots of the Havero Trading Company, and which are quoted at rates much below those ruling in the market, introduces a fresh factor which may become a serious menace.

Tobacco.—The enormous trade in cigarettes, both imported and locally manufactured, has been an easy target for the activities of political boycotters and has suffered more from political agitation than any other important United Kingdom activity with the sole exception of cotton piecegoods. Imports of unmanufactured tobacco shrank from nearly 7 million lbs. in 1928/29 to 4½ million lbs. in 1929/30 and to 1½ million lbs. in 1930/31, which was the lowest figure recorded since the previous boycott movement of 1921/22. The Indian factories were either on short-time or were entirely closed for most of the year, creating serious unemployment and heavy loss both to the owners and to the Indian exchequer. From the point of view of United Kingdom industry, however, the most serious feature was the fall in the imports of United Kingdom cigarettes from 5,257,579 lbs. to 2,840,434 lbs. representing a decline in value from Rs.212 lakhs to Rs.118 lakhs. Although there has been some reduction in boycott activity during recent months, the fall in the imports of United Kingdom cigarettes during April-July, 1931, was from 1,146,123 lbs. (Rs.46¾ lakhs) to 685,942 lbs. (Rs.27 lakhs). The heavy surcharges of 15 per cent. on cigars, Rs.1-8-0 per thousand on cigarettes and 12 annas per pound on unmanufactured tobacco which were imposed in March, 1931, will seriously retard the recovery of the industry. Although the boycott of cigarettes will undoubtedly wane as it did after the 1921/22 agitation, the campaign as launched by Mr. Gandhi and his associates against both tobacco and alcohol has a certain moral background which will have an effect long after the purely political motive has disappeared. It is anticipated, therefore, that the recovery will be a slow one and that it will be some years before the trade regains its former dimensions.

Drugs and Medicines.—The valuable trade in drugs and medicines fell by 14 per cent. from Rs.2,26 lakhs in 1929/30 to Rs.1,94 lakhs in 1930/31. It is satisfactory to record an improvement in the first four months of 1931/32 from Rs.55 lakhs to

Rs.59 lakhs, largely due to increased arrivals of proprietary and patent medicines and quinine salts. The United Kingdom share in drugs and also in patent medicines and foods has been considerably affected by the political movement. The withdrawal by the General Medical Council of Great Britain of the recognition of Indian medical degrees provided the first excuse for a boycott movement. At a meeting of Indian members of the medical profession held in Calcutta on April 15th, 1930, a resolution was passed to the effect " that in order to record a protest against the unjustified and undeserved slur on the Indian medical graduates and that in view of the fact that the British public have by their silence connived with the General Medical Council, and in order to develop the resources of India in respect of medical goods and appliances, this meeting asks the practitioners of Bengal to avoid prescribing or ordering British medical goods, but to encourage Indian manufacturers by ordering their products. If import of such goods from foreign countries is found essential, this meeting asks the practitioners to order them from countries other than the United Kingdom." It was unfortunate that the inauguration of this movement coincided with the Bengali New Year when large contracts for drugs, &c. are normally placed by the Calcutta importers. The result was that United Kingdom products were neglected, while German, American and other foreign firms booked orders fairly freely. Conferences took place between British representatives and the leaders of the boycott movement, from which it became evident that the real influence was an attempt to stimulate the local " swadeshi " manufacture of drugs.

In June, 1930, some 147 Bombay dealers in patent medicines, drugs, toilet soap, perfumery and toilet preparations, signed an agreement to refrain from purchasing goods of British manufacture for a period of three months, which was subsequently extended. Both the movements, however, failed owing to the natural desire on the part of the dealers to continue trading. Although orders were, at first, only placed with British houses under a pledge of secrecy, trading has now become more general and the boycott factor is relegated to secondary importance. The main difficulties at the present time are, firstly, the competition of sound German products at lower prices and, secondly, the competition from both foreign and Indian preparations which are not equal to the standard of the British Pharmacopœia. The first difficulty is an almost insuperable one, but as regards the second handicap it is hoped that the report of the recent Indian Drug Committee will result in the introduction of legislation on the lines of the British Therapeutics Act or the American Pure Food and Drugs Act.

Bazaar Metals.—The statistical position of the copper and yellow metal trades is set forth at length in Chapter VI. The trade suffered from the boycott movement on the Bombay side and

dealers are still reluctant to undertake forward transactions. Elsewhere in India the political element was not so pronounced and the heavy decline was principally due to the restricted purchasing power of the masses. Prior to, and in the years immediately following the war, United Kingdom rollers of yellow metal sheets occupied a very strong position in the trade and consistently shipped over a crore of rupees worth per annum. German sheets at lower prices have now succeeded in securing 70 per cent. of the business. Similarly, in the case of copper sheets, German imports account for 30 per cent. and British shipments 27 per cent. The present position in the Bombay market is dominated by lack of confidence in the future. The recent heavy falls in the prices of brass and copper have depreciated the value of stocks in the hands of dealers, who—in view of the ever present fear of a revival of picketing—prefer to avoid the political risk by purchasing Continental goods, especially as these are usually lower in price than the United Kingdom article.

Bazaar Hardware.—Although efforts were made both in the Calcutta and Bombay markets to put a ban on the imports of United Kingdom hardware, these were not very successful and it will be observed from the statements in Chapter VI that the British share of a greatly reduced import actually rose from 35 to 36 per cent. while the German contribution fell from 33 to 30 per cent. The American position, however, remained steady at 12 per cent. The reduction in the British percentage from the pre-war figure of 57 is a measure of the declining competitive power of the United Kingdom in the Indian bazaars, where cheapness and a showy, meretricious appearance are generally far more important than quality and durability. Even before the war, Continental prices were lower than United Kingdom quotations for most cheap bazaar lines, but dealers were willing to pay a slight premium for United Kingdom quality, which was recognised, and we held a large share of the trade. Owing to the great increase in the cost of production in the United Kingdom since the war, United Kingdom prices of these low-grade articles have risen to such an extent that they are beyond the purchasing power of the masses. In many articles of hardware and sundry goods, Continental makers can now underquote to the extent of 15 to 30 per cent. The goods sold are probably in many cases of inferior quality, but they serve their purpose and, moreover, the Indian importers, dealers and other lesser middlemen are usually able to make greater profits in these goods, as they are dealing with consumers who cannot always judge intrinsic value and so long as the article is lower in price than their previous purchase, they will accept it. One hears of claims for inferior quality, finish, &c., but dealers admit that these only occur in a very small proportion of their transactions and are more than offset by the increased margins they make on the goods. The only remedy would appear to lie in the establishment

of separate plants for the manufacture by mass production of the cheapest types of articles suited to the trade. These goods should be marketed under entirely new names and trade marks, as it would be fatal to compromise the reputation for quality which our well-known marks have acquired after a century of trading. The extent of the demand for such articles is enormous, as it includes not only India but also practically all markets in the Near and Far East and a great part of South America. The only doubtful factor would seem to be whether, even with every labour-saving device, it would be possible to produce in the United Kingdom as economically as the Continental manufacturer can with his lower-paid workers.

As I have frequently stated, it is a notable fact that there are in India remarkably few British merchant houses who devote their attention to the bazaar trade. This is largely due to the fact that the wealthier and more powerful houses have found their managing agency, shipping, insurance and engineering business so profitable that they have not cared to spend time and trouble over a trade which involves such an immense amount of detail work. The result is that, with one or two exceptions, the business is in the hands of smaller firms. The method adopted is to canvass the bazaars daily by means of Indian brokers and, in the case of some of the more enterprising firms, by European representatives. Indents are collected for a variety of articles, usually on a 2½ per cent. commission basis. These indents are then forwarded either to the firm's London, Liverpool, or Glasgow house, or else to their buying agents in the United Kingdom. The home firm then makes contracts with United Kingdom manufacturers, pays cash for the goods and either draws on its Indian branch or client for the value, or else finances the shipment by direct drafts on the Indian dealer with its own branch or clients as a " case of need." There is, in addition, a large and growing direct trade between home export merchants and bazaar dealers, the only intermediary being an individual agent or travelling representative in India of the shipper. In many cases, United Kingdom export merchants ship direct to the bazaar dealers against their indents without any intermediary at all, the drafts being negotiated by, and the goods consigned through, the medium of the exchange banks. There is, however, considerable risk attaching to this business, except in the case of the strongest dealers, and, therefore, it is not a method to be recommended unless the greatest caution be exercised. Manufacturers desirous of entering the business are advised to place themselves in touch with the home offices or buying agents of the importing houses in Calcutta, Bombay, Karachi, Madras and Rangoon, or they may prefer to correspond direct with the importer on the field in those cases where they are prepared to draw on him. They should be prepared to sample freely, and to follow the desires of the market where reasonably possible. Very small orders will

frequently have to be accepted at first; but, once a trade is established, the aggregate of these should amount to a considerable value. Once a name has been established for his goods, the manufacturer should follow this up by sending a travelling representative to India each cold weather, who would visit all clients, whether European or bazaar firms, would investigate complaints and claims, would show new ranges of specialities and book orders on them, on the understanding that the indents should be passed through the usual importing houses on the usual terms, and who would be able to advise his principal each year of any change in styles, designs, fashions or make-up, and also of financial conditions in the market.

A serious factor of recent years, is the decline in the number and standing of confirming houses in London who deal with this market. Owing to the severe losses incurred owing to the defaults of dealers in the series of crises commencing in 1921, many firms have relinquished the business, while others are only confirming on behalf of a restricted number of the dealers, whom they consider to be trustworthy and of adequate financial standing. For some years manufacturers' travellers have reported that they can only obtain the confirmation in London of a fraction of the orders they receive during their Indian tour. They are therefore confronted with the problem as to whether they should take the risk of drawing on a small dealer, who may default if the market goes against him, or whether they should allow the trade to go past them. The risks attending the direct trade are incalculable and hence it is desirable for United Kingdom manufacturers to exercise the greatest circumspection and care in periods of political unrest and economic depression such as the present.

CHAPTER III.

AN ACCOUNT OF THE FURTHER DEVELOPMENT OF PURCHASES OF GOVERNMENT STORES IN INDIA BY THE INDIAN STORES DEPARTMENT, THE RAILWAY ADMINISTRATIONS AND OTHER DEPARTMENTS OF THE GOVERNMENT OF INDIA.

Since the formation of the Indian Stores Department in 1922, I have traced, year by year, in these reports the gradual movement towards the inauguration of a system of purchase by rupee tenders for delivery in India and have dealt at length with its reactions on the position of United Kingdom suppliers. The new rules for the supply of articles required to be purchased for the public service came into full force from January 1st, 1931. These rules regulate the purchase of stores by all Departments and Officers of the Central Government and of the Provinces other than Governor's Provinces. Similar rules have, however, been introduced by the

Governments of Madras, Assam, Bombay and the Central Provinces and their introduction is at present under consideration by the remaining Provincial Governments.

The Revised Stores Rules.—In view of their importance to United Kingdom suppliers, I again append the revised rules in their final and complete form :—

Preamble.—The policy of the Government of India is to make their purchases of stores for public service in such a way as to encourage the development of the industries of the country to the utmost possible extent consistent with economy and efficiency, and the following rules, which are applicable to the purchase of stores (other than printing and stationery stores) for the Government of India and for provinces other than Governors' provinces are prescribed in accordance with this policy. These rules supersede all previous orders on the subject.

In order to give effect to the above policy preference in making purchases will be given in the following order :—

First, to articles which are produced in India in the form of raw materials, or are manufactured in India from raw materials produced in India, provided that the quality is sufficiently good for the purpose ;

Secondly, to articles wholly or partially manufactured in India from imported materials provided that the quality is sufficiently good for the purpose ;

Thirdly, to articles of foreign manufacture held in stock in India, provided that they are of suitable type and requisite quality.

Fourthly, to articles manufactured abroad which need to be specially imported.

Departments of the Government of India, or officers specially authorised in this behalf, may, when they are satisfied that such a measure is justified, allow a limited degree of preference in respect of price to articles produced or manufactured in India either wholly or in part.

Rule 1.—Save as provided in Rules 7 and 8, all articles required to be purchased for the public service shall be purchased on the condition that delivery shall be made in India for payment in rupees in India.

Rule 2.—Tenders shall be invited in India, and abroad also when considered desirable, for the supply of all articles which are purchased under Rules 1 to 4, unless the value of the order to be placed is small or sufficient reasons to be recorded exist which indicate that it is not in the public interest to call for tenders. No tender which fails to comply with the condition as to delivery and payment prescribed in Rule 1 shall be accepted.

Rule 3.—All articles, whether manufactured in India or abroad, shall be subject to inspection before acceptance, and articles for which specifications and/or tests have been prescribed by competent authority shall be required to conform to such specifications and/or to satisfy the prescribed test or tests, which may be carried out during manufacture or before or after despatch from the suppliers' premises.

Rule 4.—Important plant, machinery and iron and steel work shall be obtained only from firms approved by the Chief Controller of Stores, Indian Stores Department, and specified in the lists issued by him from time to time.

Rule 5.—In the case of important construction works let out on contract, articles required for the construction of such works may be supplied by the contracting firm provided that when specifications and/or tests have been prescribed for such articles they shall conform to such specifications and/or shall satisfy such tests.

Rule 6.—Nothing in these rules shall be deemed to prohibit the purchase of articles by one Department or Railway from another.

Rule 7.—The articles enumerated in Annexure A, or any other articles of a special or unusual character, may, when suitable and economical purchases cannot be made in accordance with the preceding rules, be obtained without reference to those rules subject to the following conditions :—

(*a*) Where the value of the purchase exceeds Rs.5,000 the purchasing officer shall place on record his reasons for not effecting the purchase in accordance with the preceding rules.

(*b*) The purchasing officer may at his discretion either obtain the article that he requires by indent on the India Store Department, London, or purchase it direct from manufacturers or dealers abroad. Where resort is had to direct purchase from manufacturers or dealers abroad, tenders shall, whenever practicable, be first obtained.

(*c*) When articles are purchased abroad under this rule through the agency of the India Store Department, London, payment shall be made by that Department, In other cases, payment shall be made—

(i) in countries other than Great Britain and Northern Ireland direct to the suppliers by the purchasing officer ;

(ii) In Great Britain and Northern Ireland, through the High Commissioner for India.

Rule 8.—Lethal weapons, munitions of war, technical apparatus and equipment, and any other stores required by the Naval, Military or Air Forces of the Crown in India for which drawings, patterns, specifications or designs have been issued, prescribed or announced by the Admiralty, War Office, Air Ministry, Government of India, or Commander-in-Chief in India, shall be obtained by indent on the India Store Department, London, unless they are available in India in accordance with the prescribed drawing, pattern, specification or design. Any departure from this rule requires sanction of the Government of India, and whenever an expenditure exceeding Rs.20,000 is incurred in any individual case to which such sanction has been accorded it shall be reported to the Secretary of State for India in Council.

Annexure A (Vide Rule 7).

(i) Seeds.
(ii) Cinchona bark.
(iii) Articles for experimental purposes.
(iv) China, glass, cutlery, plate, crockery and perishable fabrics, including linen for residences which are furnished by Government.
(v) Copper, zinc and other non-ferrous metals produced in Australia or America.
(vi) Timber produced in Australia or North America.
(vii) Such articles as the Superintendents of Vaccine Depots may require for the preparation of vaccine lymph.
(viii) Chemicals and scientific instruments.
(ix) Preserved and tinned foodstuffs.
(x) Articles required for Viceregal residences.

The Position of United Kingdom Suppliers of Stores and Railway Plant.—During the past year the principal United Kingdom suppliers of stores which are purchased by the Indian Stores Department and by the Indian Railways, Army Authorities and other purchasing departments of the Government of India, have proceeded with the development of their local organisation in

order to fall into line with the new conditions. Leading United Kingdom manufacturers of machinery and engineering stores have, for some time, possessed an efficient local organisation, whether in the hands of branches or of technical agents. Many suppliers of rolling-stock and fittings, bridge work, special steels and permanent way material have recently either formed local limited liability companies or taken special steps to be represented by a competent and active firm of merchants operating in the country. It is to be hoped that the remaining United Kingdom firms of Government Contractors, who have hitherto contented themselves with maintaining touch with the India Store Department, London, and the London Head Offices and consulting engineers of the company-operated lines, will lose no time in reaching a decision on this point. If they would, as a preliminary measure, send out a Director or other senior officer to survey the position and consult with the Officers of the Indian Stores Department and of the Railway Administration, they would quickly realise the need for prompt and effective action.

The following considerations may be of value to firms who are in doubt as to the type of organisation they require :—

(1) In many cases manufacturers may find it advantageous to register a limited liability company in India with rupee capital and in some instances it would be desirable to have a proportion of Indian directors on the board. The principal advantages may be summarised as follows :—

(*a*) It has been laid down as the settled policy of the Government of India " that no concession or bounty will be given to any firms in regard to industries in India unless such firms have a rupee capital, unless such firms have a proportion, at any rate, of Indian directors, and unless such firms allow facilities for Indian apprentices to be trained in their works."

(*b*) The preamble of the revised stores rules already quoted lays down that preference in making purchases will be given to articles wholly or partially manufactured in India from imported materials over articles not manufactured in India, provided that the quality is sufficiently good for the purpose. According to this rule it would be possible for the United Kingdom manufacturer to carry out a certain portion of the manufacture of his products in India and—if he were registered as an Indian company—he would be justified in claiming preferential treatment. I am convinced that United Kingdom manufacturers who have registered in India and have Indian directors will be in a much stronger position in dealing with Government purchasing departments than mere branches or agencies of overseas firms.

(*c*) So far as general business is concerned, the fact that a company was registered in India or in the United Kingdom has hitherto had little influence on its sales, but with the increase of

political and racial feeling during the past few years, one feels that in the future there may be advantages in having well-known Indian names on the Board. The rapid Indianisation of all the services lends point to this.

(2) The preamble to the revised stores rules further states that preference will be given to articles held in stock in India over those which would need to be specially imported, provided that they are of suitable type and requisite quality. This rule will, in practice, compel United Kingdom manufacturers and suppliers of stores in regular demand by the Government of India to maintain stocks in India in the hands of their branches or agents, otherwise they will run the risk of losing trade to their competitors, both United Kingdom and foreign, who hold stocks in the country. It is also important that the local branches and agencies of United Kingdom firms who hold stocks in India should apply to the Chief Controller of Stores, Indian Stores Department, Delhi/Simla, and to the Stores Controllers of Indian State Railways to be noted on their standard lists of approved contractors. They should at the same time furnish a complete list of the articles usually stocked and the amount of stock which they normally carry.

It is extremely likely that one result of this extended purchasing by Government from stocks in India will be to introduce increased foreign competition. Our foreign rivals are, in some cases, strongly entrenched in this market, and several cases have come to my notice where local firms are stocking American goods, solely because they are granted more liberal financial terms by American makers, who are prepared to grant two or three months or even longer credit on the stocks supplied. A considerable number of the larger merchant houses in India are prepared to pay cash in London for their stocks, but it should be remembered that some of the newer and lesser firms, who are equally reliable and frequently more energetic agents, cannot afford to lock up their capital in this way; in these instances a three to six months' bill would meet the case. I appeal to many United Kingdom manufacturers, who expect their agents not only to purchase stocks outright by cash in London, but also to meet the heavy costs of travelling and advertising, to take a reasonable view of local conditions. The number of first-class agents in India with ability, energy and intimate knowledge of the requirements of Government is limited. Foreign manufacturers have realised this fact and have, in many cases, appointed them as agents. Unless many United Kingdom makers are prepared to be more generous in their agency terms and to take a greater interest in the development of their sales in India, they may find that the most efficient local representatives are already fully engaged and that they are obliged to appoint second-rate firms with the result that their interests are bound to suffer.

(3) Now the rupee tender system is in force, the branch, representative or agent of the United Kingdom manufacturer is dealing

with Government departments in the relationship of principal to principal. Payment for stores and material supplied is made in India by Government to the branch representative or agent, as the case may be, with whom the contract was concluded. It is therefore most important that United Kingdom manufacturers should be represented by an organisation in India over which they have control or upon which they can implicitly rely. Otherwise, cases might arise, as I believe they have already arisen in other markets in the Empire, where agents received considerable sums from Government Departments in payment of plant and stores supplied which they failed to remit to their principals in the United Kingdom and, in the meantime, became insolvent. This is an aspect of the effects of the rupee tender system which has not, I think, so far been sufficiently appreciated but which would seem to be important.

(4) It will have been noted from the preamble of the revised rules that " the policy of the Government of India is to make their purchases of stores for the public service in such a way as to encourage the development of the industries of the country to the utmost possible extent consistent with economy and efficiency." This policy is being carried out most zealously by the Officers of the Indian Stores Department and by the Railway Board, who appear to be determined to purchase their requirements from Indian industries if possible and, failing that, from the most economical source of supply irrespective of country of origin. United Kingdom manufacturers must realise that, apart from the results of their own efforts, they will have no advantages in competition with foreign interests and, in the case of competition with Indian industries, the scales will be heavily weighted against them. Their success will therefore entirely depend upon their own efforts and the suitability of the Indian organisation which they may set up. The ideal form of representation for the large firms of manufacturers of rolling-stock, steelwork, permanent-way material, and other important items of railway stores, would appear to be a locally registered limited liability company, holding stocks of those stores or parts which are in constant demand, assembling its products in India where such a course conduces to efficiency or economy, and manufacturing locally those portions of its products which can be manufactured more advantageously in this country.

The Future of the Indian Stores Department.—At the time of writing (August, 1931) the Indian Stores Department in common with all other Departments of the Government of India, is being subjected to a close examination by a special sub-committee of the Indian Retrenchment Committee. Rumours are very general that, in view of the urgent need for public economy and of the fact that the Department showed a loss of over Rs.9 lakhs in 1930/31, its abolition will be decided upon as a measure of retrenchment. A definite decision is not likely to be made for two

or three months, but I firmly believe that, so far from being abolished, the Department will emerge from the present crisis with extended scope. The Department has received steady support from the Indian Legislature, who are largely responsible for its creation, in pursuance of their policy of transferring the control of stores purchases from London to India, which has now been accomplished, and of using the Department as a strong lever for the stimulus of Indian industries. During recent months it has taken over the purchase of additional valuable categories of railway stores such as tyres and axles, vacuum brake gear, certain standardised bridgework, motor vehicles, &c., &c., and already purchases all State railway requirements of such important items as textiles, oils and paints, structural iron and steel, electrical machinery and fittings and cables. Its services are also being utilised to an increasing extent by Provincial Governments, Army Headquarters, the Posts and Telegraph Administration, &c., &c. In these circumstances, it would appear likely that the Government of India will decide that, in order to place the Department on a self-supporting basis, its turnover should be increased and such economies as can be effected shall be made among the other purchasing authorities which are still attached to railways, the Army organisation and other departments.

The Indian Stores Department in 1930-31.—I am indebted to Mr. J. S. Pitkeathly, C.M.G., C.I.E., C.V.O., C.B.E., Chief Controller of Stores, for the following information, which has been abstracted from his administration report for the year. This and preceding reports may be seen at the Department of Overseas Trade and should be read by all firms interested in the supply of stores to the Government of India. The Chief Controller reviews the progress made during the year in the following terms :—

" The turnover for the year under review fell short of that attained during the year 1929-30, as the figure of work done for that year included a substantial volume of business carried over from the preceding year. Notwithstanding a large drop in prices, the value of work done during 1930-31, in terms of fees earned, exceeded, however, the average of the two preceding years by Rs.46,851. Judged by the volume of work which passed through the Department, there was a substantially greater increase during the year under review. A point to be borne in mind in this connection is the fact that the fees are calculated on value both in respect of the stores purchased and the major portion of those inspected, and the more, therefore, the Department fulfils one of the primary objects of its existence, viz., the economical purchase of stores for the public service, the less it earns in fees.

" **Utilisation of the services of the Indian Stores Department by Government Departments in India.**—It was mentioned in paragraph 2 of the report for the previous year that orders were issued by the Department of Industries and Labour during the year 1929-30 to all authorities under their direct control that the purchase of all classes of stores, handled by the Indian Stores Department, should, in future, be entrusted invariably to that Department. Further progress was made in this direction during 1930-31 and similar orders were issued by the Department of Industries and Labour to all minor Local Administrations, and by the Home, Commerce and Foreign and Political

Departments to the authorities under their direct control. As a result of these orders the value of the purchases on behalf of those authorities exceeded the corresponding figure of the preceding year by over a lakh of rupees, in spite of a reduction of about Rs.3 lakhs in demands of a non-recurring nature from the Andamans Commission and of about Rs.1½ lakhs from the Civil Aviation Department. The question of the issue of similar orders to other central departments is under the consideration of the Government of India.

"**Utilisation of the services of the Indian Stores Department by authorities outside India.**—The services of the Department were again utilised by the Resident Engineer, Royal Airship Base, Karachi, for the purchase and inspection of stores. Tents of the value of over Rs.9,000 were inspected on behalf of the Palestine Government and about 3,000 tons of cast iron pipes and specials were inspected on behalf of the Singapore Municipality.

"The facilities offered by the Inspection Branch of the Department were brought to the notice of the Governments of South Africa, Ceylon and Malaya through the Agents of the Government of India in those countries. Orders have been issued by the Government of Ceylon to the Railway Department and the Controller of Revenue to publish in the Indian Trade Journal all tender notices amounting to Rs.5,000 or over in respect of stores obtainable in India. The Commissioner of Police, Federated Malay States, has also offered to publish his invitations to tender in the Indian Trade Journal and negotiations are in progress in that direction.

"**Activities of the Purchase Branch.**—The total value of orders placed by the various sections of the Purchase Branch during the year amounted to Rs.3,76,82,696 as compared with Rs.4,29,25,701 during the preceding year. The decline of 12 per cent. (amounting to Rs.52,43,005) in the value of purchases is to a large extent attributed to the general fall in prices of commodities, which in several instances far exceeded this percentage. This is evidenced by the fact that the number of indents received during the year for compliance actually increased from 17,058 to 23,233 and the number of contracts placed from 29,767 to 33,311. The number of items dealt with declined from 68,957 to 67,224, but this reduction occurred entirely in the items dealt with in the provincial purchase circles. As the value of orders placed by these organisations actually exceeded the previous record, in spite of the fall in prices, the reduction in the number of items merely represented a decline in petty demands which indenting departments had been advised to handle direct. The number of items dealt with in the Headquarters office, which include important purchases, rose from 24,509 to 25,091.

"**Clientele of the Department.**—There was a further addition during the year to the list of authorities utilising the services of the Department for the purchase of supplies required by them. Thirty-seven new authorities entrusted their purchases to the Department for the first time since its constitution. The value of orders placed on their behalf amounted to Rs.4,01,227 distributed as below :—

	No.	Amount. Rs.
(1) Central Departments (Civil, Military and Railways)	12	3,16,222
(2) Provincial Governments	18	58,814
(3) Indian States and Quasi-Public Bodies ...	7	26,191
Total	37	4,01,227

The Departments which chiefly contributed to this amount were :—

	Rs.
(1) The Chief Inspector of Lighthouses	2,13,956
(2) The Imperial Council of Agricultural Research	70,052
(3) The Department of Industries, Madras ...	27,277
(4) Gwalior State	18,438

"**Purchases on behalf of the Civil Departments of the Central Government.**—Notwithstanding the existence of the causes which adversely affected the business generally, the demands from Central civil departments increased by Rs.4,05,929. This is attributable to the orders which have been issued to certain Departments of the Government of India regarding the compulsory purchase of stores, which are referred to in paragraph 2.

"**Purchases on behalf of the Military Department.**—In pursuance of the recommendations of the Public Accounts Committee on the subject of entrusting the purchase of requirements of the departments of the Central Government to the Indian Stores Department in an increasing degree, a Purchase Co-ordinating Committee was formed during the year, comprising representatives of the Master General of Ordnance Branch and the Indian Stores Department, to deal with the question in relation to the requirements of the Army. The only important decision reached by this Committee so far is that the purchase of such stores for the Army as were previously obtained by indent on the Director-General, India Store Department, London, and which will in future be purchased in India, under the provision of the revised Stores Rules, would be entrusted to the Indian Stores Department.

"There was a heavy diminution in the demands from the Master General of Ordnance Branch (Rs.11,88,427) and the Military Engineer Services (Rs.7,10,043) which was partly counterbalanced by increases in the indents received from the Royal Indian Marine (Rs.3,79,697) and the Quartermaster General's Branch (Rs.1,55,830). The chief reasons for the decline were a further reduction in the demands for clothing equipment for the army, withdrawal from the Indian Stores Department of the purchase of fuel oil, reduction in the demands for steel sections from the Military Engineer Services, and a general drop in prices.

"**Purchases on behalf of Railway Administrations.**—Two meetings were held with the Railway Department (Railway Board) during the year to consider the question of making further additions to the list of requirements of the Railway Administrations the purchase of which has been made over to the Indian Stores Department. As a result, substantial additions were made to the list, the more important of which were :—

1. Vessels, sea-going, and river-craft.
2. Vacuum brake fittings (including rubber fittings).
3. Motor vehicles and accessories.
4. Sheets, asbestos cement.
5. Iron, pig.
6. Oil, kerosene and gas making.
7. Petrol.
8. Electric generating plant and equipment.
9. Fans, railway carriage.
10. Train lighting equipment.
11. Primary cells.
12. Oxygen.

"Owing to the existence of unexpired railway contracts for several of these items, the effect of these additions on the turnover of the Department will not be felt until next year.

"Due to a fall in prices and curtailment of demands, on account of financial stringency, the value of orders placed on behalf of Railway Administrations (including Company Railways) declined from Rs.1,50,46,429 to Rs.1,27,97,842. The purchases made for the North Western Railway, the Burma Railways, the Madras and Southern Mahratta Railway, the South Indian Railway and the Central Publicity Bureau increased by Rs.11,55,000, but those for the East Indian Railway, the Eastern Bengal Railway, the Great Indian Peninsula Railway, the Bombay, Baroda and Central India Railway, the Assam Bengal Railway, the Bengal Bagpur Railway, the Jodhpur Railway, and the Mysore Railways declined by Rs.34,04,000. As the total purchases made for Railway

Administrations did not exceed the limit of Rs.175 lakhs, the sliding scale of charges sanctioned by the Government of India in the year 1928, which allows a rebate on the charge of 1 per cent. levied by the Department for purchase of stores in excess of that limit, could not be brought into effect.

"**Purchases on behalf of major Local Governments.**—The total value of stores purchased on behalf of the major Local Governments amounted to Rs.62,48,110, as against Rs.74,42,092 during the year 1929-30. The demands from the Governments of Madras, United Provinces, Bihar and Orissa and Burma increased by over Rs.6 lakhs, but those from the Governments of Bombay, Bengal, Punjab, Assam and Central Provinces fell short of the previous year's total by about Rs.18 lakhs. The decrease in the value of demands from the Government of Bombay was caused by a further contraction of Rs.10,34,210, in the requirements of the Lloyd Barrage and Canals Construction Scheme. The demands from other departments under the Government of Bombay exceeded the corresponding figure for the previous year by Rs.2,73,838, of which the Public Works Department contributed Rs.2,19,294 and the Police Department Rs.70,664. There was a heavy decline, from Rs.5,18,205 to Rs.2,53,499 in the value of cotton and woollen yarn purchased on behalf of the Punjab jails. The textile purchases on behalf of that department consequently diminished by Rs.3,06,700. The purchases on behalf of the Public Works Department in the Punjab, Assam and Central Provinces also show a diminution of Rs.4,74,339, Rs.1,56,221 and Rs.92,112 respectively, owing to the receipt of indents during the year 1929-30 for special non-recurring demands.

" The increases in the purchases on behalf of the Governments of United Provinces and Burma, which amounted to Rs.1,40,504 and Rs.1,08,545 respectively, are deserving of special notice. The Government of the United Provinces have established a Stores Purchase Organisation of their own, which after detailed examination of various contracts made by the Indian Stores Department decided to operate against several such contracts, particularly those relating to paints, lubricants, disinfecting fluids, oil fuel, safes, cement and road dressing materials. The purchases on behalf of the Government of Burma amounted to Rs.1,92,369 as against Rs.83,824 during the year 1929-30. These purchases, together with those amounting to Rs.10,38,489 arranged on behalf of the Burma Railways, include business of a substantial amount, secured for the Indian market.

" Eighteen new departments, embracing six of the nine major provinces, placed orders for the supply of stores with the Department for the first time. Altogether 96 Provincial Departments utilised the services of the Department during the year.

"**Details of important purchases.**—The more important purchases made during the year are specified below. Details of other articles purchased can be obtained on application to the Department of Overseas Trade :—

TEXTILES.	Amount. Rs.
Cotton waste	17,33,000
Drill, khaki, coloured, white and grey	11,89,000
Serges, flannel, greatcoat cloths and broad cloth	11,35,000
Blankets, woollen	10,58,000
Yarns, woollen and cotton	4,42,000
Pugree cloth, muslin, nainsook, calico, etc.	3,46,000
Socks, woollen and cotton	3,31,000
Tents and components	2,79,000

ENGINEERING AND ALLIED STORES.

	Amount. Rs.
Oil, kerosene	19,09,500
Steel sections, sheets, flats and rounds	15,44,000
Cement	15,05,000
Electric lamps, fans and fittings	14,76,000
Oil, lubricating	13,43,000
Oil fuel	11,73,000
Cables, electric	10,77,000
Road dressing material, asphalte, road tar, etc.	10,54,000
Electric generating and converting plant and prime movers	8,91,000
Oil, axle	8,81,000
Wire, copper	6,47,000
Steamers and other seagoing craft	5,99,000
Sluice gates	5,44,500
Paints and dry pigments	5,24,500
Pipes and fittings, galvanised iron and mild steel	5,16,500
Oil, castor	5,12,000
Motor vehicles, trucks and spare parts	5,10,500
Steel structures	4,73,000
Pipes, and specials, cast iron	4,61,000
Wire, galvanised iron, plain and barbed	4,54,000
Oil, linseed, raw and double-boiled	4,04,500
Pumping plant and equipment	3,52,000
Tanks, pressed steel and staging	3,09,500
Asbestos cement sheets	3,00,000
Petrol	2,80,000
Enamels and varnishes	2,52,000

"**Encouragement of Indian Industries and Local Purchases.**—Efforts were continued during the year to assist manufacturers in India in improving the quality of their products by means of technical advice and suggestions in the course of purchase, inspection and testing of materials, and every endeavour was made to substitute articles of Indian manufacture for those imported from abroad. A few noticeable instances are given in the following paragraphs.

THE TEXTILE INDUSTRY.

"There has been a marked increase during the year in the number of mills spinning finer counts of yarn and weaving finer qualities of cloth and it will be possible in future to obtain fine longcloth, muslin, etc., from local manufacturers instead of importing the same from abroad. A leading firm of textile manufacturers in Bombay have evolved a new type of bleached absorbent gauze for surgical and medical purposes to take the place of gauze which was previously imported.

"The following textile manufactures received special attention during the year:—

"*Jean khaki for bandoliers.*—The question of preparing a suitable specification for khaki jean for making up into bandoliers was taken up in the year 1923, at the instance of the Army authorities. At the time, khaki jean to an existing Army specification was supplied by two firms only, one in Bombay and the other in Cawnpore. The former firm supplied jean which satisfied the specification, but when made up into bandoliers the finished articles failed to pass the prescribed tests. The material supplied by the latter firm did not satisfy the specification but the finished bandoliers satisfactorily stood the tests. From a close scrutiny of the existing specification, it was discovered that it did not contain all the particulars necessary to show manufacturers the precise class and nature of the material required. A draft specification

embodying all the essential particulars was prepared and submitted to the Army Department and has since been accepted by them, with a few minor alterations. No difficulty is now anticipated in the manufacture in India of a material suitable in all respects for making the article required and it will no longer be necessary to restrict the orders to one or two firms who held a monopoly for the supply in the past.

" *Cloth for the manufacture of haversacks.*—The cloth for the manufacture of haversacks for the Army has in the past been obtained through the Director-General, India Store Department, London. A sample of cotton canvas khaki, received from a mill in India was forwarded to the Inspector of Clothing Stores, Shahjahanpur. The quality, when water-proofed, has been reported on as suitable for the purpose by the Army Inspectorate and the Director of Contracts had been asked to place his future demands with the Department for purchase in India.

" *Drill, cotton, bleached.*—At the suggestion of the Department, the Royal Indian Marine authorities have agreed to substitute bleached drill of local manufacture for American pepperil drill.

THE ENGINEERING INDUSTRY.

" There has been a marked improvement since the constitution of the Department in the capacity and equipment of firms engaged in the manufacture of wagons, bridges and steel structures. Although ten years ago there were firms building wagons and fabricating steel bridges, work of the magnitude and quality now common could not have been undertaken at that time and many components were obtained in the finished state from abroad. The continual pressure of the Inspectorates for a higher standard of workmanship has necessitated improvement in method and the use of additional plant, and these in turn have resulted in an increased capacity for dealing with difficult or more complicated types of work. Every possible encouragement has been given to these industries by the Department by entrusting to local firms its own demands for important bridges and structural work not undertaken by them before, *e.g.*, suspension bridges, aeroplane hangars, steam launches, etc., and by inducing other purchasing organisations to divert such orders to manufacturers in India.

" The Bally Bridge for the Calcutta Chord Railway, is a striking example of the magnitude of steel bridge work which can now be undertaken successfully in India. The bridge, which consists of seven spans (excluding the approach spans) of 350 ft. each, aggregating 17,000 tons in weight, including heavy cast steel bearings, has been entirely fabricated in India under the supervision of the Calcutta Inspection Circle of the Department.

" *Couplers, electric.*—A fairly large contract for Kent type electric couplers was placed in India by a Railway Administration with a local firm in Bombay. As the patent had run its course, the firm undertook manufacture of the article on a production basis. Every assistance was given to the firm by the local Inspectorate, especially with regard to improvement in the finished aluminium castings and the method of assembling the copper contacts to obtain high efficiency. A high-class coupler was produced which satisfactorily withstood severe overload tests. The results obtained are most encouraging, as this is the first time a firm in India has attempted to manufacture this type of coupler.

" *Bodies for M. T. Vehicles*—The Army Authorities in India were asked to consider the possibilities of manufacture in the country of bodies for M. T. vehicles, and it was suggested that, if detailed drawings were available and firms in India were given an opportunity to quote, all requirements could probably be met in India without sacrificing economy or quality. The indenting department agreed to order thirty-six bodies from a manufacturer in India as an experimental measure.

" *Other miscellaneous articles.*—Special interest was also taken during the year in the manufacture or substitution for imported materials of several other

articles, among which may be mentioned pugrees, cooking ranges, resin, glassware and enamelware, plywood boards, bituminous solution, metal polish, and soap.

"**Important Purchases of Articles of Indian Manufacture.**—The following is a list of the more important contracts placed during the year for products which were wholly or partially manufactured in India. Particulars of other Indian articles purchased may be obtained on application to the Department of Overseas Trade.

TEXTILE MATERIALS.

	Amount. Rs.
Waste cotton, white and coloured	17,33,000
Drill khaki, white, coloured and grey	11,80,000
Greatcoat cloth, serges and broad cloth	10,56,000
Yarn, cotton and woollen	4,42,500
Socks and stockings	3,31,000
Tents and tent components	2,79,000
Pugree cloth, muslin, nainsook, calico, etc.	2,50,000

ENGINEERING AND ALLIED STORES.

Cement	14,66,500
Oil, axle, all weather	7,75,500
Road tar and other road dressing material	6,80,000
Steel sections and steel sheets	6,76,000
Oil, castor	5,12,000
Wire, copper, bare	4,46,000
Oil, linseed, raw and double boiled	4,04,000
Pipes and specials, C.I.	4,00,000
Steel structures	3,90,000
Oil, kerosene	3,61,000
Paints and dry pigments	3,41,500
Petrol	2,80,000
Tanks, pressed steel	2,63,500
Oil, gas making	2,58,000

"**Scrutiny of Indents on the India Store Department, London.**—As a result of the introduction of the Revised Stores Rules, there was a further reduction during the year in the number and value of indents on the India Store Department, London, received for scrutiny and increase in the percentage of items challenged in those indents. One thousand one hundred and sixty-five indents of the estimated value of Rs.2,83,80,217 were examined during the year as against 1,414 indents of the aggregate value of Rs.3,16,06,941 during the year 1929-30. Items aggregating Rs.14,82,168 or 5·2 per cent. of the total value of the indents examined (as against 5·7 per cent. during the preceding year) were challenged and the results communicated to the indenting authorities."

Purchases of Railway Materials.—The most recently published report on Indian Railways for 1929/30 states that the value of stores purchased by all Indian Railways increased from Rs.29·63 crores in 1928/29 to Rs.30·06 crores in 1929/30, the principal increase being under rolling stock (Rs.366 lakhs). The value of indigenous materials purchased rose from Rs.12·81 crores to Rs.13·83 crores while the value of imported materials declined by Rs.59 lakhs. The following table records the amounts spent under each main heading :—

	Value of imported materials.			Value of indigenous materials	Total purchases 1929-30	Total purchases 1928-29
	Purchased direct.	Purchased through agents in India.	Total imported materials			
	Rs. crores.	Rs. crores.	Rs. crores.	Rs. crores.	Rs. crores.	Rs. crores.
Rolling-stock	6·05	1·23	7·28	1·63	8·91	5·25
Tools and stores	0·55	3·52	4·07	3·07	7·14	6·53
Permanent way	0·47	0·19	0·66	4·89	5·55	7·00
Electric plant	1·22	0·90	2·12	0·04	2·16	3·64
Building and station materials and fencing ...	0·11	0·29	0·40	0·17	0·57	0·72
Bridgework	0·28	0·16	0·44	0·09	0·53	0·96
Workshop machinery ...	0·40	0·26	0·66	—	0·66	0·71
Engineers' plant	0·23	0·16	0·39	0·05	0·44	0·39
Other materials*	—	0·21	0·21	3·89	4·10	4·43
Total	9·31	6·92	16·23	13·83	30·06	29·63

*Other materials consist of coal and coke, stone, bricks, lime and ballast, etc.

Purchases through the Indian Stores Department.—The extent to which railways have availed themselves of the services of the Indian Stores Department during the last two years is shown in the next table :—

	(In thousands of rupees). 1928-29	1929-30
1. Textiles	20,45	41,17
2. Cement	5,73	16,53
3. Creosote	25	—
4. Lubricating and other oils and greases	46,27	57,44
5. Paints and varnishes...	11,30	17,35
6. Electric fans, lamps and other electrical stores ...	6,03	8,69
7. Plant and machinery	6,18	1
8. Water supply materials	2,63	2,11
9. Structural steelwork including bridge girders ...	96	48
10. Soaps	56	53
11. Hardware	1,39	2,81
12. Miscellaneous	2,71	3,33
Total	1,03,96	1,50,45

Expenditure on the Fabrication and Manufacture of Stores in India.—The statement, already given, showing the value of the stores purchased under the principal headings does not take into account the very large expenditure incurred by the Railways themselves on fabrication and manufacture, nor the cost of large engineering works carried out *in situ*. The following statement, however, gives the approximate expenditure on the fabrication of purchased stores, separate figures being given in the case of stores imported and stores of Indian manufacture or of indigenous origin.

These figures are exclusive of the value of the stores used in the fabrication and manufacture or in the engineering works :—

	Cost of fabrication and manufacture of stores imported direct or of imported stores purchased in India.	Cost of fabrication and manufacture of stores of Indian manufacture or of indigenous origin.
	(In thousands of rupees).	
1. Construction of locomotives	19,22	4,25
2. Construction of boilers	3,51	55
3. Construction of coaching stock including underframes	64,84	55,38
4. Construction of goods stock including underframes	41,84	16,52
5. Construction of spare parts of locomotives ...	37,55	15,19
6. Construction of spare parts of coaching and goods stock	27,65	19,33
7. Construction of other stores	90,36	26,80
8. Work done for other Departments, *i.e.*, departments other than that supervising the workshops ...	1,05,34	38,30
9. Engineer's plant	11,32	87
10. Permanent way	9,19	27,12
11. Bridge work	6,42	61
12. Structural or other engineering works	13,16	9,61
Total	4,30,40	2,14,53

The cost of structural and other engineering works carried out *in situ* was :—

	(In thousands of rupees)
Bridge work	1,45,93
Structural and other engineering works	4,49,98
Total	5,95,91

Standardisation of Locomotives.—The Railway report states :—

" At the close of the year under review, 402 locomotives, constructed to the Indian Railway Standard designs, had been received and placed in service and a further 220 standard locomotives were on order. The locomotives now in service represent thirteen different types (seven 5 ft. 6 in. gauge, four 3 ft. 3⅜ in. gauge and two 2 ft. 6 in. gauge) and include 5 ft. 6 in. gauge shunting locomotives with 17 and 22½ ton axle-loads (XF and XG) and a 3 ft. 3⅜ in. gauge branch line locomotive of 8 ton axle-load (YF) which made their first appearance in India during the year.

" The building of three further types, comprising a 5 ft. 6 in. gauge 4-cylinder express passenger locomotive (XS) and 5 ft. 6 in. and 3 ft. 3⅜ in. tank locomotives for short branch line passenger traffic (XT and YT), was well advanced at the end of the year and their arrival in 1930-31 will mark the completion of the detailed standard designs for fourteen out of the sixteen standard types hitherto contemplated by the Locomotive Standards Committee for broad and metre gauge lines.

" Four experimental 4-cylinder passenger locomotives of the type referred to above are under construction, Among the features of special interest on these locomotives, the provision of the Caprotti poppet valve gear on two locomotives and the Lentz rotary cam poppet valve gear on the remaining

two, also the positioning of the cranks at 135°, so as to give eight impulses per revolution, on one locomotive fitted with each type of valve gear may be mentioned. On their arrival in this country these experimental locomotives will undergo extensive comparative trials to determine both the merits of the two types of valve gear and the general performance of these locomotives relative to the standard heavy 2-cylinder passenger locomotive (XC).

"The Locomotive Standards Committee met once during the year and dealt with a large number of modifications considered desirable as a result of further experience gained with locomotives built to the standard designs."

The great reduction in the replacement programme of Indian Railways owing to the need for drastic economy will be realised when I state that the 1932/33 programme will probably include not more than 33 locomotives of all types and 167 locomotives boilers and super-heating conversion units.

Standardisation of Rolling Stock.—The Railway report states:—

"Prior to this year no vehicles, other than the original sample vehicles, had been built to the Indian Railway Standard designs. During the year the following Indian Railway Standard vehicles (expressed in terms of 4-wheeled units) were constructed, all being built in India with the exception of 63 broad gauge and 18 metre gauge wagon units.

	Carriage underframes. Units.	Wagons. Units.
5 ft. 6 in. gauge	741	1,806
3 ft. 3⅜ in. gauge	268	1,420

"The carriage underframes comprised three standard types, the whole being built at the East Indian Railway's works at Tatanagar. The wagons were of six broad and eight metre gauge standard types.

"During the year orders were placed for the following additional Indian Railway Standard vehicles (expressed in terms of 4-wheeled units), all orders being placed for construction in India.

	Carriage underframes. Units.	Wagons. Units.
5 ft. 6 in. gauge	335	1,091
3 ft. 3⅜ in. gauge	400	1,103

Sample broad gauge 64, 80, and 135 ton well wagons, steel motor vans, and metre gauge 72 ton well wagons were received during the year, and following sample vehicles were under construction in England at the close of the year:—

5 ft. 6 in. gauge.	3 ft. 3⅜ in. gauge.	2 ft. 6 in. gauge.
Short bogie carriage underframes	Short bogie carriage underframe	Carriage underframe six types of wagons and brake van
	4-wheeled carriage underframes	
	Modified 4-wheeled covered jute wagon	
	Modified bogie covered wagon	

"It was decided during the year that the building of sample vehicles and the preparation of detailed standard drawings should in future be undertaken in India, and in pursuance of this policy detailed drawings of high capacity

metre gauge petrol and oil tank wagons were completed and sample orders placed. Detailed drawings of the Indian Railway Standard automatic vacuum brake fittings were also completed and their issue early next year is anticipated."

To all intents and purposes, with the exception of a few special types, the requirements of the Indian Railways as regards underframes are produced at the railway underframe works at Tatanagar and as regards wagons, in the works of the Indian Standard Wagon Co., Ltd., and of Messrs. Jessop and Co., Ltd.

Purchase of Army Requirements.—The position remains largely unchanged. The bulk of the imported stores contracted for in India are purchased by the Director of Contracts at Army Headquarters, Delhi/Simla. Textile stores are purchased by the Indian Stores Department, which also deals with the engineering requirements of the Engineer-in-Chief's branch of Army Headquarters. The Deputy Director-General (Stores) of the Indian Medical Service purchases in India considerable quantities of drugs, medicines, dressings and surgical instruments and apparatus. Medical stores depots are maintained at Calcutta, Bombay, Madras, Lahore and Rangoon. Practically all other imported stores on Army account are obtained from the Director-General of the India Store Department, London.

Reference should be made to the very large number of six-wheeled motor transport lorries, both 30 cwt. and 3-ton, which have been purchased during the last few years by the Motor Transport Section of the Quartermaster-General's Branch, Army Headquarters, Delhi/Simla. The general programme of mechanisation is now almost completed, but the renewals each year will provide a valuable and steady business for the United Kingdom motor manufacturers concerned. The valuable turnover in spare parts is being handled by the Indian Stores Department under the rupee tender system and consequently it has become imperative for United Kingdom suppliers to maintain spare parts depots with adequate stocks, from which immediate delivery can be given. It is satisfactory to note that the principal United Kingdom manufacturers, who are concerned, have already taken action on these lines.

Department of Posts and Telegraphs.—The Director-General of Posts and Telegraphs in his Annual Report for 1929/30 states that almost all his purchases of stores in India, which steadily increased during the year, were made through the agency of the Indian Stores Department. He summarises his stores transactions for telegraph stores as follows:—

	1928-29	1929-30
	Rs.	Rs.
Opening balance	83,18,275	73,78,804
Receipts	79,39,806	57,54,741
Issues	88,79,277	74,23,950
Closing balance	73,78,804	57,09,595

Special efforts to reduce the value of stocks to a minimum have been continued. During the year the stock balance was reduced by Rs.16,69,209 and the balance now represents about six months' requirements, apart from the stores to the value of Rs.20,52,000 maintained as a reserve for Military mobilisation requirements.

The Indian Canteen Contractors' Syndicate, Ltd.—I have traced, in previous reports, the origin and formation of the Syndicate. The following note, specially contributed by Mr. A. C. Murray, the Managing-Director, will be read with interest by United Kingdom purveyors of provisions and canteen stores :—

" The second year of existence of the Canteen Contractors' Syndicate Ltd., which is the approved co-operative organisation for supplies to Army Canteens in India, showed progressive increase of sales to its Contractor-Members. A dividend of 4 per cent. resulted on their paid-up capital of Rs.11 lakhs. The current year has shown a further steady increase of turnover amounting to 28 per cent. This has been achieved largely by extending the range of supplies offered, so that the number of lines originally stocked is now almost doubled.

" Of the nineteen countries from which the Syndicate procures its imported lines, Great Britain receives the largest measure of business, comprising provisions principally, soaps, polishes, stationery and sundries. In glassware, crockery and hollow-ware, for all of which there is heavy demand, the cheaper prices offered by the Continent put British goods out of the market. Indian products, comprising jams, tinned butters, pickles, vinegar condiments, pipeclays, polishes, brushware, cooking oils, dried fruits, etc., receive their full share of trade.

" The Syndicate by regular shipments, and by encouraging its members to order only quantities for prompt consumption, has undoubtedly established a standard of freshness for its goods which, in a climate like India, commends them to its soldier-consumers. Its four import depots at Karachi, Bombay, Calcutta and Madras also make for quickness of supply.

" Long rail journeys, however, extending sometimes to three weeks, in iron trucks, under a tropical sun, take heavy toll of tinned goods especially. Moreover, the Army Authorities are more and more vigilant in this matter, and foodstuffs showing the slightest suspicion of " puffing " are invariably condemned. Packing firms, therefore, are ill-advised who count on cutting their costs mainly at the expense of the tinning.

" The Indian trader knows those brands which " stand up to the climate," and gives them his support. The C. C. Syndicate goes a step further and where it is offered a line moderate in price, of good quality and packed to withstand Indian conditions, it adds it to the list of the ' C.C.S. Own Brands ' which it markets under its own special label. This list is an increasing one, covering mainly such lines as tinned cheese, fish of various kinds, fruits, etc., on which the Syndicate feels it safe to set its seal.

" During July, 1931, the Syndicate organised a first modest Trades Exhibition held in Simla. Unfortunately, owing to lack of space, a very large number of applications for stall accommodation from all parts of the world, had to be refused. Some 30 leading firms of suppliers, however, managed to get accommodated and the opinion was that similar Exhibitions might be held annually to the advantage of all concerned.

" The occasion was primarily intended to give manufacturers an opportunity to display their latest wares to the Syndicate's Contractor-Members, then in session in Simla from all parts of India. Business, however, was not confined only to these, and other traders were made equally welcome ; as also the general public, who were undoubtedly enlightened by what they saw, as to

the possibilities of the modern regimental canteen as an up-to-date shopping centre.

" Any enquiries should be addressed to the Managing Director, The Canteen Contractors' Syndicate Ltd., P. O. Box 113, Karachi, India."

CHAPTER IV.

REVIEW OF THE ACTIVITIES OF THE INDIAN TARIFF BOARD DURING THE YEAR.

INQUIRY INTO THE QUESTION OF AFFORDING ADDITIONAL PROTECTION TO GALVANISED SHEETS.

This inquiry was referred to the Tariff Board in the Government of India, Commerce Department's Resolution No. 260-T (122) dated the 30th September, 1930.

In a resolution No. 260-T (127) dated 30th December, by the Government of India, Department of Commerce, it is stated:—

" The Tariff Board have found that the fair selling price of galvanised sheet manufactured in India is now Rs.236 per ton and that the landed duty free price of imported British sheet is Rs.169 per ton, so that protection is now required for the Indian article to the extent of Rs.67 per ton, the difference between those two prices. As the existing duty on non-fabricated galvanised sheet is at the rate of Rs.30 per ton, the amount of additional protection required is Rs.37 per ton. The recommendations made by the Board are as follows:—

(*a*) The additional protection required should be given in the form of an additional duty of Rs.37 per ton on imported galvanised sheet, not fabricated; this additional duty should remain in force for the remainder of the period of protection given by the Steel Industry (Protection) Act, 1927, that is, until the 31st March, 1934.

(*b*) The duty on imported iron or steel pipes and tubes and fittings therefore if riveted or otherwise built up of plates or sheets, galvanised, should be raised from Rs.33 per ton or 17 per cent. *ad valorem*, whichever is higher to Rs.73 per ton or 17 per cent. *ad valorem*, whichever is higher.

(*c*) The duty on imported iron or steel sheets (including cuttings, discs and circles) under one-eighth inch thick, fabricated, galvanised, should be raised from Rs.33 per ton or 17 per cent. *ad valorem*, whichever is higher, to Rs.73 per ton or 17 per cent. *ad valorem*, whichever is higher.

" The Government of India accept the findings of the Board in respect of the need for additional protection to the manufacture of galvanised sheet in India and in respect of the amount of protection required. They are unable to accept the view expressed by the Tariff Board that the Legislature by including in the Steel Industry (Protection) Act, 1927, provisions which empower the Governor-General in Council to increase the protective duties in certain circumstances, gave expression to the view that further assistance, when required, should be afforded by way of duties and not by the grant of bounties. The effect of the Act is merely this, that if the method of increasing the duty is preferred, the Government of India can take action without awaiting the sanction of the Legislature, whereas bounties cannot be paid without the vote of the Assembly. But the Government of India must necessarily retain their freedom to submit to the Legislature such proposals as seem best adapted to the circumstances of the case. They have carefully considered the question in what form the additional protection required for the manufacture of galvanised sheet should be given and they have decided

to accept the recommendations of the Board. The arguments for proceeding by way of bounty are, they think, stronger than the Tariff Board believed, but the existing financial conditions preclude the adoption of that method. After the increase in the duty, the price of galvanised sheet will be lower by Rs.34 a ton than the fair selling price as determined by the Board in 1926.

"The Tariff Board have recommended that the higher duty proposed should remain in force for the remainder of the period covered by the Steel Industry (Protection) Act, 1927. It is the view of the Government of India that the higher duty will be required throughout that period, and it is not their intention to reduce the rate, unless circumstances change so radically as to make its retention clearly unnecessary and undesirable. In the notification issued under Section 3 (4) of the Indian Tariff Act the duty has been increased for the period ending on the 31st March, 1931, but a Resolution will be placed before the Legislative Assembly in the coming session recommending its continuance beyond that date.

"In accordance with these decisions, the following increases will be made immediately in the import duties chargeable under the Indian Tariff Act:—

	Item in the Import Tariff Schedule.	Present rate of duty.	New rate of duty.
146	Iron or steel pipes and tubes and fittings therefor, if riveted or otherwise built up of plates or sheets—		
	(*a*) galvanised	Rs.33 per ton or 17 per cent. *ad valorem*, whichever is higher	Rs.73 per ton or 17 per cent. *ad valorem*, whichever is higher
148	Iron or steel sheets (including cuttings, discs and circles), under $\frac{1}{8}$ in. thick—		
	(*a*) fabricated—		
	(i) galvanised	Rs.33 per ton or 17 per cent. *ad valorem*, whichever is higher	Rs.73 per ton or 17 per cent. *ad valorem*, whichever is higher
	(*b*) not fabricated		
	(i) galvanised	Rs.30 per ton...	Rs.67 per ton

In determining these rates of duty only the price of galvanised sheet of British manufacture has been taken into account as provided in Sections 3 (4) of the Indian Tariff Act, but they will be applicable to all imported galvanised sheet, wherever manufactured."

In January, 1931, the Legislative Assembly passed a resolution that the duties as laid down above should be continued up to 31st March, 1932, and that, before that date, the Government of India should make inquiries in order to ascertain whether a system of bounties might not be substituted wholly or in part for the increased duty.

INQUIRY INTO THE SALT INDUSTRY.

In my last report I gave a copy of the resolution of the Department of Commerce of the Government of India showing the events leading up to the reference to the Tariff Board.

The report of the Tariff Board was published in September, 1930, and a Committee of the Legislative Assembly was appointed to examine the proposals of the Tariff Board and their report was laid on the table of the Assembly on 13th March, 1931.

On 5th April, the Salt (Additional Import Duty) Act, 1931, received the assent of the Governor-General. Under the Act an additional duty of 4½ annas per maund was imposed on salt imported into any port in British India (except Aden and Perim) but produced outside India. The Act which came into effect on 17th March, 1931, by virtue of a declaration inserted in the Bill under the Provisional Collection of Taxes Act, 1918, is in force until 31st March, 1932.

In a communiqué dated 13th September, 1930, the Government of India stated that they had decided to appoint a Committee to undertake a fuller investigation into the possibility of expanding the existing sources of supply of salt in India, and the effect of such expansion on prices. The Committee consisted of Sir Chunilal Mehta and Mr. C. H. Pitt, the General Manager of the Northern India Salt Range Division, and their report was published in May, 1931. They arrived at the same conclusions as the Tariff Board that there is no ground for assuming that with imports from Aden, India cannot easily be made self supporting in the matter of salt supply and that even the Continent of India itself can, when areas suitable for salt manufacture, but at present lying idle, are developed, supply all the crushed salt that Bengal needs. A copy of the report may be consulted by firms interested at the Department of Overseas Trade, 35, Old Queen Street, London, S.W.1.

INQUIRY INTO THE SUGAR INDUSTRY.

The inquiry into the Sugar Industry was referred to the Tariff Board in Resolution No. 127-T (19) dated 20th May, 1930, of the Department of Commerce, and they were asked to determine :—

(i) whether the conditions laid down in paragraph 97 of the report of the Indian Fiscal Commission are satisfied in the case of the sugar industry, in which term is intended to be included the grower of sugar-cane in India, the manufacturer of "gur," including rab, jaggery and all other indigenous forms of raw sugar, and the manufacturer of crystalline sugar;

(ii) to what extent, if any, and in respect of what classes or descriptions of sugar, protection should be afforded, and

(iii) how its recommendations, if any, will affect industries using any sugar-cane products.

The Tariff Board commenced their inquiry at the end of June, 1930, and visited a number of centres in the latter part of 1930. In their report, which was published in March, 1931, they reported, among others, the following conclusions :—

(*a*) The area under cane in India over a series of years has remained very steady, the average during the last 20 years being 2,840,000 acres.

(*b*) The main product of sugar-cane in India is "gur," of which between 2½ and 3 million tons are consumed annually.

(*c*) There are at present 29 factories capable of manufacturing white sugar direct from cane. There are also 14 refineries which manufacture white sugar mainly from "gur." The total output of white sugar by factories and refineries amounts to about 100,000 tons annually. To this must be added about 200,000 tons manufactured annually by the common indigenous process known as the "bel" method. There has been considerable improvement in the extraction of sugar by this process since the Indian Sugar Committee (1920) reported, probably as a result of the use of centrifugals.

(*d*) There has been a remarkable increase in the efficiency of extraction of Indian factories since the Sugar Committee reported in 1920. At that time the average extraction was 6·85 per cent. which has now improved to about 9 per cent. in Indian factories.

(*e*) The three conditions laid down by the Fiscal Commission are fulfilled by the sugar industry and a case for protection has been established.

(*f*) The agricultural aspect of the case for protection is the most important. It is essential in the national interests that the area under sugar cane should not diminish and that a fresh outlet should be provided for cane by encouraging the expansion of the white sugar industry. Unless steps are taken to develop the white sugar industry a disastrous slump in the "gur" market is probable which will seriously affect the agricultural classes, disorganise the agricultural system and involve the abandonment of better cane cultivation in large areas.

(*g*) The khandsari system of sugar manufacture is of great importance.

(*h*) Taking the fair selling price at Rs.8-13-1 and the normal landed price at Rs.4, the measure of protection required is Rs.4-13-1 per maund or Rs.6-9-3 per cwt.

(*i*) Any scheme of bounties is on administrative grounds impracticable. If khandsari manufacturers were included in the scheme, it would be impossible to devise machinery for assessing and checking the bounty. If the khandsari industry were excluded from the scheme, central sugar factories would be given an unfair advantage over this branch of the industry.

(*k*) Assistance therefore given should be by way of duty. In order to enable the industry to face initial difficulties and to safeguard the position of the manufacturer of indigenous sugar by the "bel" method in Rohilkhand the duty, for the first seven years, should be fixed at Rs.7-4-0 per cwt. and for the remaining period at Rs.6-4-0 per cwt. The total protection thus granted would be approximately the same as would result from the imposition of a duty of Rs.6-9-3 for the whole period of protection.

(*l*) The period of protection should be for 13 years.

(*m*) Since agreement regarding export quotas appears to have been arrived at by the leading sugar producing countries, no further immediate increase in duty beyond the protective duty already recommended seems necessary. Should the present international negotiations for stabilisation of prices fail or should market prices in Calcutta in the future fall below Rs.4 without duty, a further duty of 8 annas per cwt. should immediately be imposed.

(*n*) Power to impose this duty might desirably be vested in the Governor-General in Council but subsequent to the imposition of such duty sanction of the Legislature should be obtained for the continuance of the deferred duty and for the fixation of the period for which it is to be in force.

(*o*) The duties should apply to all classes of sugar including sugar candy.

(*p*) Expenditure on development and research in connection with sugar cane in India is on a scale which in view of the importance of the sugar-cane crop may be considered small, particularly when compared to expenditure in such countries as Java and Hawaii. Increased sums should be allotted to development and research work since without such measures the whole purpose of the protective scheme is likely to be delayed if not defeated. Indeed this is almost a condition precedent to protection.

(*q*) A grant of not less than Rs.10 lakhs annually should be made to the Imperial Council of Agricultural Research for this purpose. If the scheme of protection outlined is accepted legislation should be introduced making it compulsory for sugar factories to submit such returns or information as may be called for by the Governor-General in Council or any officer authorised by him in this behalf.

(*r*) The scale for cane payment recommended by the Indian Sugar Committee, namely a sliding scale based on price for cane equal to half the price of sugar manufactured from it subject to a minimum of 6 annas per maund appears generally suitable. But in the first years of protection this should be increased by one anna per maund.

(*s*) Power should be taken to enable the Governor-General in Council or any authority authorised by him in this behalf to issue rules requiring sugar factories to post in a conspicuous place at the entrance to the factories notices specifying such matters in connection with rates paid for cane as may be thought fit.

(*t*) The Sugar Committee is right in its opinion that any attempt to force cultivators to surrender control over land to sugar factories is undesirable.

(*u*) There are not sufficient reasons for introducing a system of licensing of factories and definite zones of operation for each factory.

(*w*) Government should not invest in shares in sugar companies but the grant of loans by Government, should this form of assistance appear desirable in any particular instance, would not be open to objection.

(*x*) If the industry is declared protected, steps should be taken as early as possible to ensure that the conditions suggested by the Fiscal Commission are fulfilled by companies engaged in Sugar Industry. (See paragraph 292 of the Fiscal Commission's Report).

(*y*) Fair representation of Indian interests on the Directorate and opportunity for Indian investors to subscribe to the share capital of new companies should be secured by such means as Government may consider practicable in the circumstances of the sugar industry.

(*z*) No loan, grant, subsidy or other facility should be offered to any sugar factory which has not complied with these conditions."

Decision of the Government of India.—In introducing the Budget for 1931-32, the Finance Member stated :—

" The case of sugar is a special one. I have included it in the list of items on which the basic rate is to be changed, but, in a sense, our proposal is actually in the nature of a surcharge. The position is special, because, while I am now proposing an increase in the duty for revenue purposes, we had received, just when my budget proposals were on the point of completion, the recommendations of the Tariff Board for the protection of sugar. Although I, as Finance Member, in bringing forward a Finance Bill must look at the matter entirely as a revenue question, nevertheless, it would obviously be absurd for us to pretend that, with the Tariff Board's proposals in our hands, we can consider revenue measures with no reference in our minds to the plan for protection on which the Government will have to take a decision at an early date. At the same time, sugar duties cannot be permanently adopted as protective measures until they have been carefully examined by the Government and discussed, as protective measures, by the Legislature. My budget proposals

must therefore be regarded purely as revenue measures which are, however, provisional in the sense that they may shortly have to take on a permanent protective aspect.

"The Tariff Board's Report will, I understand, be almost immediately available to Honourable Members. In the meanwhile, I must explain what are their recommendations as regards sugar duties. Summarised, the Board's recommendations are :—

(1) A basic duty of Rs.6-4-0 per cwt. on all classes of sugar, including sugar candy, to be imposed for 15 years.

(2) An additional duty of Rs.1 per cwt. on all classes of sugar to be imposed for the first 7 years.

(3) Power to be taken to add 8 annas per cwt. to the duty at any time if the landed price of sugar at Calcutta ex duty falls below Rs.4 per maund.

(4) No protective duty on molasses.

"Comparing these proposals with the present rates of duty, the position is as follows :—

"Leaving out of consideration, for the moment, the lower grades which are of minor importance, the Government would, if they adopted the Tariff Board's recommendation, have to raise the duty on sugar of 23 D.S. and over from its present rate of Rs.6 per cwt. to Rs.7-4-0, *i.e.*, to impose an additional duty of Rs.1-4-0 per cwt., while they would further have power to add an additional 8 annas per cwt. to the duty if the landed price at Calcutta falls below Rs.4 per maund. I may say that at present the price is hovering just about this level.

"So much for the Tariff Board's plan. My own proposals for revenue purposes had been very close to this, for I had actually contemplated an extra duty round about Rs.1 to Rs.1-8-0 per cwt. What I have now included is an increase of Rs.1-4-0 per cwt. on all grades of sugar. This, as I have said, must be regarded purely as a revenue measure pending consideration of the Tariff Board's recommendations. But Honourable Members will see that it is not inconsistent with those recommendations."

The decision of the Government of India on the remainder of the recommendations of the Tariff Board has not yet been published.

INQUIRY INTO THE MANUFACTURE OF CERTAIN RAILWAY MATERIALS MADE OF STEEL.

In the Government of India, Commerce Department Resolution No. 38-T (16) dated 15th May, 1930, the following inquiry was referred to the Tariff Board :—

" The Government of India have received a representation from Messrs. Henry Williams (India) Ltd., stating that the manufacture in India of the articles specified in the margin is hampered by the fact that the import duties on the manufactured articles are lower than, equal to or insufficiently above the protective duties levied on the materials required for their manufacture, and asking that the Tariff Board may be directed to inquire into the question whether higher duties should be imposed on all or any of the articles mentioned. The Government of India have decided to refer this question to the Tariff Board. The Board is requested to examine the representation and make such recommendations as it deems fit."

(1) Chrome steel points and crossings
(2) Bearing plates
(3) Fishbolts
(4) Rivets
(5) Bolts and nuts
(6) Dog spikes
(7) Stretcher bars
(8) Gibs and cotters

Conclusions of the Board.—The Tariff Board recommended that the following duties should be imposed :—

Fishbolts and nuts. Ordinary bolts and nuts. Dog spikes.	Rs.2-4-0 per cwt.
Rivets. Gibs, cotters and keys.	Rs.2-0-0 per cwt.

They also proposed that chrome steel switches and crossings should no longer be exempt from the protective steel duty and that stretcher bars, whether imported with switches and crossings or separately should be liable to the protective duty.

Government of India Decision.—The Government of India accepted the recommendations of the Tariff Board, which were embodied in the Steel Industry (Protection) Act, 1931, which received the assent of the Governor-General on the 28th February, 1931, from which date the revised duties came into force.

INQUIRY INTO THE PRICE OF STEEL RAILS.

In the Government of India, Department of Commerce Resolution No. 260-T (124) dated 1st December, 1930, this inquiry was referred to the Tariff Board :—

" Following the recommendation made by the Tariff Board in their report of 1926 on the Continuance of Protection to the Steel Industry that the Railway Administrations should arrange to purchase the whole of their requirements of rails in India, so far as they can be produced in the country, a contract was made with the Tata Iron and Steel Co., Ltd., under which the Government of India agreed, subject to certain conditions specified in the contract, to purchase rails from the Company at the rate of Rs.110 per ton for a period of seven years beginning on the 1st April, 1927. In September, 1930, the Government of India agreed on certain conditions to an extra payment of Rs.20 on each ton of rails ordered from the Tata Iron and Steel Co. under the contract mentioned above for the year 1930-31. This additional payment was made as an act of grace on the ground that the annual quantity of rails taken by Government had on the average fallen considerably below the estimate upon which the scheme of protection to the iron and steel industry formulated by the Tariff Board in 1926 and embodied in the Steel Protection Act of 1927 was based, regard being had in particular to the views expressed by the Tariff Board in paragraph 109 of their Report. In view of this curtailment in their orders for rails since the contract was made and of the probability that the quantity of rails to be ordered during the remaining years of the contract will continue to fall considerably short of the original estimate, the Government of India are prepared to consider whether until the period covered by the contract terminates an additional payment per ton of rails should not be made to the Iron and Steel Company, and they have decided to refer the matter to the Tariff Board for enquiry and report.

" The Tariff Board are accordingly directed to report after such enquiry as they may consider necessary whether in all the circumstances of the case an additional payment should be made to the Tata Iron and Steel Co. in respect of the orders for rails placed under the contract in future and if such additional payment is recommended, how the amount should be determined. Since the contract was made, orders have also been placed with the Company for 115 lb. rails which are not covered by the terms of the original contract and the Tariff Board should also consider what additional payment (if any) should be made

in respect of them. The Government of India do not anticipate that it will be necessary for the Tariff Board to take evidence except from the Tata Iron and Steel Co. and the Railway Board. They hope that the Tariff Board may find it possible to submit their recommendations by the 7th January, 1931."

Conclusions of the Board.—At the time that the price of Rs.110/- per ton for rails f.o.r. Jamshedpur was fixed for a period of seven years from the 1st April, 1927, it was estimated that the orders for rails would approximate 200,000 tons per annum. The present orders are about 88,000 tons and, due to the restriction of the construction of new lines in the immediate future, there does not appear to be any probability of increase on the latter amount. In the circumstances, the Tariff Board are of opinion that the claim to an additional price for rails is justified.

With regard to the second point, the Tariff Board are of the opinion that their task was to determine what share of the increased expenditure per ton of steel, resulting from the decline in the tonnage of rails ordered can reasonably be charged against the price of rails and, after examining the matter, they came to the conclusion that a figure of Rs.8 per ton represents a fair estimate of the difference in the works costs during a seven-year period resulting from the decline in orders for rails. To this has to be added Rs.12/- per ton which represents the increase in overhead charges and profit which may properly be allocated to rails.

The Tariff Board, therefore, consider that Rs.20/- represents the increase per ton which might be made to the price of rails on account of the diminution of orders and that a price of Rs.130/- per ton cannot therefore be considered too high.

With regard to the additional payment to be made in respect of 115 lb. rails, the Tariff Board find that the cost of manufacturing these rails is approximately Rs.7/- per ton more than that of 90 lb. rails and they, therefore, recommend that the price to be paid for 115 lb. rails should be Rs.137/- per ton. Their recommendation is subject to the condition that this class of rails is included in the contract with the Railway Board and that all orders are placed with the Tata Iron and Steel Company. If orders were small or irregular, a higher price would be necessary.

Decision of the Government of India.—In moving a resolution in the Legislative Assembly on 1st April, 1931, regarding the additional payment for rails to the Tata Iron & Steel Co., Ltd., the Honorable Sir George Rainy, Member for Commerce and Railways, accepted the recommendation of the Tariff Board so far as 90 lb. rails were concerned. With reference to the 115 lb. rails he stated :—

" There is one small point of detail which I had better mention and that is the 115 lb. rails which were not included in the original contract because at that time rails of that weight were not wanted. A supplementary contract made in 1929 fixed the price at Rs.120 a ton, on the representation of the Tata Iron and Steel Co. that they were rather more expensive to make. We felt that as regards the additional payment, these 115 lb. rails hardly stood in the

same position as the other rails, and that instead of an additional payment of Rs.20 a ton, we could not justify to this House the payment of a larger amount than Rs.10 a ton, making Rs.130 in all, or the same price which it is proposed to pay for the other rails."

After discussion, the following resolution was adopted :—

" This Assembly recommends to the Governor-General in Council that he should make to the Tata Iron and Steel Co. Ltd., an additional payment for such quantity of rails as may be ordered from the Company for the year 1931-32 under the terms of the existing contract made by the Secretary of State for India in Council with the Company, such additional payment to be at the rate of Rs.20 for each ton of rails over and above the price specified in the contract, namely, Rs.110 per ton. This Assembly further recommends that for such quantity of rails of 115 lb. per yard section as may be ordered from the Tata Iron and Steel Co., Ltd., for the year 1931-32 the Governor-General in Council should make an additional payment at the rate of Rs.10 for each ton of rails over and above the price fixed for these rails in 1929, namely, Rs.120 per ton."

INQUIRY INTO THE GOLD AND SILVER THREAD AND ALLIED INDUSTRIES.

On the 15th May, 1930, the Government of India in their Resolution No. 180-T (12) referred to the Tariff Board an inquiry in regard to the question of extending protection to the manufacture in India of silver plate, silver thread and wire (including so-called gold thread and wire mainly made of silver), silver leaf and other silver manufactures.

The Board summarise their conclusions and recommendations as follows :—

" We consider that a case has been made out for the protection of the gold thread industry and we recommend that the duty should be fixed at 50 per cent. *ad valorem* applying alike to real gold thread, lametta, manufactures from silver wire such as spirals, spangles, etc., and all colourable imitations. For protective purposes a specific duty is admittedly more suitable but in view of the great variety of classes of gold thread and its substitutes and the difference in the prices of the various classes, we consider a specific duty inapplicable in this case. As regards the period of protection we are advised by the Department of Industries, Bombay, that it will take at least 10 years before the Indian industry can reach the European standard of quality and we recommend that the protective duty should be imposed for that period."

The Government of India accepted the recommendations of the Tariff Board, and the Gold Thread Industry (Protection) Act, 1931, came into force with effect from the 28th February, 1931. Under this Act the revised duties are as follows :—

Silver plate and silver manufactures, all sorts not otherwise specified	40 per cent. *ad valorem*
Gold plate, gold leaf and gold manufactures, all sorts not otherwise specified	,, ,,
Silver thread and wire (including so-called gold thread and wire mainly of silver) and silver leaf; including also imitation gold and silver thread and wire, lametta and metallic spangles, and articles of a like nature, of whatever metal made	50 per cent. *ad valorem*

REVENUE DUTY ON PIG IRON.

The Tariff Board in their report state that the question of the retention or removal of the duty arose in the following manner :—

" The duty on machinery was removed in September, 1927, and in a representation to the Board the Britannia Engineering Co., Calcutta, pointed out that this would adversely affect their position as manufacturers of jute and tea machinery, since their raw materials, namely steel and pig iron, were liable, the one to a protective and the other to a revenue duty, while foreign machinery would be admitted free. It was considered that the removal of the duty on pig iron might to some extent remove the inequality of treatment, if any case for relief was established. Accordingly in July, 1928, the Board addressed manufacturers of pig iron, requesting their views on the subject of the removal of the duty. Meanwhile the Britannia Engineering Co. requested that their application should be kept pending for 12 months after which they would be in a better position to gauge the exact effect of the removal of the duty on machinery. At the end of this time, the Company withdrew their application.

" While the application of the Britannia Engineering Co. remained pending, representations were also received from the following firms and institutions asking for the removal of the duty :—

1. Messrs. Kirloskar Bros., Kirkloskarwadi.
2. The Sikdar Iron Works, Calcutta.
3. The Bihar and Orissa Chamber of Commerce.
4. The Bengal National Chamber of Commerce.

Many of the grounds on which the removal of the duty on pig iron was urged in these representations do not fall strictly within our terms. For example it was urged that the existence of a combine of manufacturers of pig iron with the avowed object of maintaining prices was contrary to the public interest ; that the revenue duty afforded indirect protection to the industry for which no case could be established ; that by maintaining prices at a high level the manufacturers were themselves able to engage in the foundry business without fear of competition from other firms, who had to purchase their supply of pig iron in the open market. With these and other reasons advanced for the removal of the duty we are not directly concerned in an enquiry confined to the question of tariff inequality though we shall have occasion to refer to some of them at a later stage of the report.

" It is alleged in all the representations regarding the removal of the duty that the three largest producers of pig iron in India, namely the Tata Iron and Steel Co., the Indian Iron and Steel Co., and the Bengal Iron Co. have entered into business arrangements, whereby the price of pig iron is maintained at the import level and in the absence of competitive conditions the internal price of pig iron is enhanced by the 10 per cent. import duty. Manufacturers of machinery in which cast iron plays a part are therefore at a disadvantage in competing with similar imported machinery. It is therefore claimed that the duty on pig iron should be removed. It is this presentation of the case which we have in the main to investigate."

Conclusions of the Board.—The Tariff Board after taking the evidence of interested parties came to the following conclusion :—

" We have found that the removal of the revenue duty on pig iron would not directly interfere with our scheme of protection for the steel industry. At the same time the advantage thereby received by manufacturers of machinery would be negligible and it has not been proved that the continuance of the duty will place them at any considerable disadvantage in competing with imported goods. The removal of the duty will result in a diminution in the profits of

the iron companies, which in the case of the Tata Iron and Steel Company may amount to about one lakh of rupees annually. In view of the recent strike at the Tata Iron and Steel Co's works we consider the present an unfavourable time for the removal of the duty. Further, the proposal, if accepted, would adversely affect the Mysore Iron Works and render their successful working a matter of considerable difficulty. Since this is the only ironworks not included in the combine, any restriction of its activities might in the end react unfavourably on the consumer. The success of this enterprise is also of considerable importance from the national point of view, affording as it does a reserve supply of acetone for the manufacture of explosives. Our conclusion, therefore, is that no case has been made out upon which we can base any recommendation for the removal of the revenue duty. We think that no serious harm will be done to any consumer if it is retained until the statutory enquiry into the steel industry takes place in 1933-34 or earlier. The whole position can then be re-examined and if it is then found that a better case is made out for its removal, the duty may be removed."

Decision of the Government of India.—The Government of India in their Resolution No. 38-T (14) dated 13th June, 1931, accepted the finding of the Tariff Board.

INQUIRY INTO THE HEAVY CHEMICAL INDUSTRY.

In my last report I referred briefly to this inquiry which was still under consideration. The terms of reference to the Tariff Board, which were contained in the Government of India Department of Commerce Resolution No. 199-T (8) dated 16th July, 1928, covered sulphuric acid, hydrochloric acid, nitric acid, magnesium sulphate, ferrous sulphate, potash alum, aluminium sulphate, sodium sulphide, zinc chloride, copper sulphate, and Glauber's salt.

In the terms of reference the attention of the Tariff Board was called to the fact that the removal of the import duties on materials of industry was recommended by the Fiscal Commission and was in accordance with the principle of the Resolution adopted by the Legislative Assembly on the 16th February, 1923; that the chemicals in question were utilised as raw materials in certain Indian industries and that the Government of India have decided that, along with the question of extending protection to the manufacture of particular chemicals, the Tariff Board should examine the question of the removal of the import duties on those chemicals which are used as materials in Indian industries.

Conclusions of the Board.—The main conclusions of the Tariff Board may be summarised as follows :—

(*a*) The basis of the whole group of chemicals considered in this report is sulphuric acid. On account of the heavy freight on acids, the manufacture of sulphuric, hydrochloric and nitric acids has generally been carried on profitably in India. The absence of this natural protection, however, in the case of salts derived from sulphuric acid has prevented their manufacture except on a small scale.

(*b*) The total market in India (excluding Burma) for the chemicals with which we are concerned is approximately 12,000 tons in terms of chamber acid on a 100 per cent. basis. In the next few years we estimate that the market may reach 16,000 tons, without taking into account the manufacture of

artificial fertilisers. On these figures we find that the market in India is sufficiently large for the production of chemicals on an economic scale.

(*c*) The case for protection of the chemical industry rests primarily on its supreme national importance. It is a key industry, the products of which are used in most other industries, it is indispensable for purposes of national defence and it provides an essential foundation for chemical research in industries and agriculture.

(*d*) The present costs of the industry, however, are based on too small a scale of production and cannot be accepted as a suitable basis for determining the measure of protection. We consider that if the industry were so organised that one of the two chemical works in Bombay would supply the whole of the market in Western India, the resulting costs would afford a more appropriate basis for determining the measure of protection.

(*e*) On this basis we consider that during the period of protection the industry should attain an average annual production of 4,000 tons of chamber acid on a 100 per cent. basis. If this output is attained, we estimate that the fair selling price of chamber acid at 100 per cent. will be Rs.75 a ton. Taking the corresponding fair selling prices of the various chemicals and comparing them with the latest import prices, we find that except in the case of Epsom salts and zinc chloride, no substantial addition to the revenue duty will be required while in some cases duties considerably less than the revenue duty will suffice. On the three acids and on copperas no protection will be necessary.

(*f*) If the industry attains an output of 8,000 tons of chamber acid on a 100 per cent. basis, for which in the next few years a sufficient market would be found in Western India, we estimate that the fair selling price of chamber acid at 100 per cent. will be Rs.55 a ton, which compares very favourably with the price of sulphuric acid of the same strength in any other part of the world. On the corresponding fair selling prices for the various chemicals, we find that the three acids and five out of the eight salts we are considering will require no protection at all. Of the remaining salts, one will require a duty well below the revenue duty and in the case of two only would a duty in excess of the revenue duty be required. Further economies and increased output may reduce costs still more.

(*g*) On these facts we find that the conditions laid down by the Fiscal Commission are substantially fulfilled by the chemical industry.

(*h*) Our recommendations regarding the form and measure of protection are set out in Chapter VI and Appendix I. We propose that the protection required should be given generally in the form of specific duties. In the case of Epsom salts and zinc chloride the specific duties proposed are equivalent to *ad valorem* duties of 44 per cent. and 34 per cent. respectively. We are satisfied that no appreciable burden will be thrown on industries thereby. On the other chemicals, the duties represent substantially the present level of revenue duties. In certain cases where on the fair selling prices a reduction in the revenue duties might be theoretically justifiable, we have proposed their retention at the present rate as there has been no serious demand for their reduction and the effect on the industries concerned is negligible.

(*i*) We desire to emphasise the interconnection of the duties we have proposed on the various classes of chemical products. The alteration of any individual duty may have unforeseen consequences on the output and cost of production of other chemicals, thus vitiating the whole scheme of protection.

(*k*) On account of overproduction in European countries and the existence of large combines in the chemical industry, we cannot make any forecast regarding the future course of import prices. We therefore recommend that power should be conferred on the Governor-General in Council to levy such additional duties as may be necessary to offset a decline in import prices.

(*l*) It is impossible to estimate precisely the period within which the chemical industry will be able to dispense with protection. We therefore recommend as in the case of the steel industry that no limit should be fixed to the

period of protection, but that provision should be made for a fresh inquiry at the expiration of seven years.

(*m*) We find that there is no case for the removal of the import duties on those chemicals which are used as materials in Indian industries. No substantial relief of the burden on industries is likely to result and the question of the removal of these duties must wait until a general revision of the fiscal policy with a view to the removal of duties on all raw materials is effected.

(*n*) In view of the close connection between the chemical industry and the manufacture of two classes of artificial fertilisers, namely ammonium sulphate and superphosphate, in the manufacture of which sulphuric acid plays an important part and in view of their obvious importance for Indian agriculture, we have considered the advisability of fostering the manufacture of these fertilisers in India.

(*o*) No assistance is called for under present circumstances in respect of ammonium sulphate. But, having regard to the fact that ammonium sulphate is already produced in India on a considerable scale, we consider it important that the price at which it is sold in India should be substantially reduced with a view to the encouragement of agriculture and extension of the market for fertilisers. The present price in India is considerably above the level in England, though the purchasing power of the Indian ryot is much below that of the English farmer.

(*p*) We find that the manufacture of superphosphate is a suitable industry for the grant of protection. We believe that in spite of competition from compound fertilisers there will be a sufficiently large market in India for superphosphate and that the establishment of a local industry will help materially to reduce its price to the great benefit of the Indian agriculturist.

(*q*) We recommend that the protection required for the manufacture of superphosphate should take the form of a bounty. The bounty should be payable on the first 10,000 tons of superphosphate produced in a year by any individual factory whose annual output is not less than 2,000 tons. We have proposed a minimum output to qualify for the bounty because we consider that it is undesirable to encourage the establishment of small uneconomic units of manufacture which would be unable to survive the withdrawal of protection. The rate of bounty should be fixed at 12 annas per unit of soluble phosphoric anhydride. The payment of bounty should be subject generally to the conditions laid down in the Steel Industry (Protection) Act, 1924, and the maximum liability of Government should be fixed at 7 lakhs of rupees annually for a period of seven years.

(*r*) We have based our proposals for the protection of the chemical industry on the assumption that production will be carried on by several units of manufacture working independently in the principal centres of distribution. In view of the increasing tendency to large-scale organisation in other countries, we consider that a much more economical method of development would be to organise a single unit of manufacture supplying the whole of the Indian market until each important centre of distribution has ultimately developed a large enough market of its own. A reorganisation of the industry on these lines necessarily implies a substantial reduction of transport charges both on raw materials and on finished products by the principal carriers of goods in the country, namely the railways.

Decision of the Government of India.—In their Resolution No. 199-T (11) dated 5th September, 1931, the Government of India give their views and detail the action which they propose should be taken on the Tariff Board's recommendation as follows :—

Views of the Government of India.—The Government of India have given very careful consideration to these recommendations and have found themselves confronted by certain difficulties which the Board's close and thorough

examination of the subject of their enquiry has exposed. That the present organisation of the chemical industry in India is unsatisfactory is evident, and, in the opinion of the Government of India, the imposition of the duties proposed by the Board would not, by itself, lead to the development of the industry on healthy lines but would rather tend to perpetuate its existing uneconomic organisation. At the same time, the Government of India consider that if the industry is found to deserve assistance, the rates of duty proposed by the Board are generally suitable. In view of the time which has elapsed since the Board reported, current prices of imported chemicals have been ascertained from Bombay and Calcutta and these show that any change which has taken place in price levels is not sufficient to require an alteration in the scale of protective duties recommended by the Board.

The Government of India consider that, while the scheme proposed by the Board for encouraging the manufacture in India of superphosphates by means of bounties would undoubtedly be of assistance in raising the volume of chemical production in India towards a level at which economical production becomes possible, and while they agree that, if the manufacture of superphosphate is to receive public assistance, such assistance should be given by means of bounties and not of duties, they would not be justified in putting the Board's proposal into immediate operation. The grant of assistance by means of protective duties or of a bounty to an industry not yet in existence is an unusual step and the Government of India are of opinion that the whole question requires further expert examination. It is by no means certain that superphosphate represents the best or the most economical form in which Indian soil deficiency in phosphates can be supplied, and if the decision is favourable on this point, the Government of India consider it desirable, before a final decision is reached, to submit to expert examination the question of the cost at which superphosphate can be produced in India and whether a scheme on the lines proposed by the Board would ultimately lead to the supply of manures at lower prices to the cultivator. Subject to any new facts which may emerge in the course of the expert examination, the scale of assistance proposed by the Board is accepted by the Government of India as suitable should such a scheme be finally approved.

Action proposed to be taken.—In the circumstances stated, the Government of India have decided to take the following action :—

(*a*) To propose the placing of protective duties on the following articles and at the rates shown against each, as recommended by the Tariff Board in Appendix I to the report :—

Names of articles.	*Rate of duty.*
1. Acid, hydrochloric	Rs.2-9-0 per cwt. or 15 per cent. *ad valorem* whichever is higher.
2. Acid, nitric—	
Having a density at 15°C. of not more than 1·42 grms. per c.cm.	Rs.3-10-0 per cwt. or 15 per cent. *ad valorem* whichever is higher
Having a density at 15°C. of more than 1·42 grms. per c.cm.	Rs.5-3-0 per cwt. or 15 per cent. *ad valorem* whichever is higher
3. Acid, sulphuric	Rs.1-4-0 per cwt. or 15 per cent. *ad valorem* whichever is higher.
4. Alum, *viz.*, ammonia alum, potash alum or soda alum	Annas 15 per cwt.
5. Aluminium sulphate or hydrated aluminium sulphate, including alumino-ferric and alum cake—	
Containing not more than 0·010 per cent. of iron	Annas 13 per cwt.
Containing more than 0·010 per cent. of iron	Annas 9 per cwt.
6. Copper sulphate or hydrated copper sulphate	Rs.3 per cwt.
7. Magnesium sulphate or hydrated magnesium sulphate—	
Containing not more than 50·0 per cent. of magnesium sulphate	Rs.1-4-0 per cwt.
Containing more than 50·0 per cent. of magnesium sulphate	Rs.2-8-0 per cwt.
8. Sodium sulphate or hydrated sodium sulphate—	
Containing not more than 50·0 per cent. of sodium sulphate	Annas 6 per cwt.
Containing more than 50·0 per cent. of sodium sulphate	Annas 13 per cwt.
9. Sodium sulphide or hydrated sodium sulphide	Rs.1-7-0 per cwt.
10. Zinc chloride or zinc chloride solution ...	Rs.4-5-0 per cwt.

with the addition of a proviso that the duty on any of these articles shall in no case be less than the duty which would be charged if the articles were included in Part V of the Statutory Tariff Schedule. This proviso is required to prevent loss of revenue while the revenue duty, which now bears a surcharge of 5 per cent. *ad valorem* is higher than the protective duty. The existing duty on copperas must be retained unchanged in view of Article II of the Commercial Convention between India and France of 1903.

(*b*) To propose that the new protective duties shall have effect until the 31st March, 1933, in the first place, pending further consideration of the possibility of reorganising the industry on an economic basis and expert investigation of the superphosphate bounty scheme for which they are already engaged in making necessary arrangements.

(*c*) To introduce a Bill during the forthcoming session of the Legislature to give effect to these proposals.

During the short period for which the protective duties are imposed, the Government of India do not propose that power should be taken to increase the duties by executive action.

The Government of India will be prepared to discuss with representatives of the chemical manufacturing interests in India how the question of developing the industry can best be studied further. As has been made clear above, in the view of the Government of India a drastic reorganisation of the industry is indispensable, if success is to be achieved, and one of the most important questions to be considered will be how that reorganisation is to be brought about.

INQUIRY INTO THE MAGNESIUM CHLORIDE INDUSTRY.

When referring the inquiry into the heavy chemical industry to the Tariff Board, the Government of India gave the Tariff Board power to extend their inquiry to other chemicals not included in the list referred to in their notification dated 16th July, 1928. The applicants for protection were the Pioneer Magnesia Works of Kharaghoda in the Bombay Presidency, who had submitted a previous application in 1924, which was referred to in my report for the year 1924-25. At that time the Tariff Board came to the conclusion that the claim to protection was not justified, and the Government of India accepted their finding.

Conclusions of the Board.—The Tariff Board have thoroughly re-examined the application and have reported their conclusions as follows:—

"We find then that the magnesium chloride industry substantially satisfies the conditions for protection laid down by the Fiscal Commission and that it is as much in the interest of the consumer as it is of the manufacturer that the industry should be reasonably protected. The protective duty required on our calculations is 15 per cent. *ad valorem* which corresponds to the general level of revenue duties and on the present price would amount to six annas eleven pies per cwt. We recommend that this duty, which was removed in September, 1927, be reimposed and be declared a protective duty. As in the case of the other protective duties which we have proposed in our Report on the Heavy Chemical Industry, we recommend that a specific duty should be imposed. This will amount in round figures to seven annas a cwt. As regards the period of protection we recommend that this be provisionally fixed at seven years. At the expiry of this period the question may be re-examined when the inquiry regarding other heavy chemicals is undertaken. But more important than the imposition of a specific protective duty, is the necessity of providing against violent fluctuations in import prices, whatever may be their cause. As we have already indicated the course of future prices is entirely uncertain and we therefore recommend that as we have proposed in the case of the heavy chemical industry legislative provision should be made for the imposition of additional duties to offset any decline in import prices."

Decision of the Government of India.—In a Resolution No. 5-T (6) dated 5th September, 1931, the Government of India summarise the action which they propose to take on the Tariff Board's report as follows:—

2. The Government of India accept the finding of the Board that the magnesium chloride industry substantially satisfies the conditions for protection laid down by the Fiscal Commission and that it is in the interest of the consumer as well as of the manufacturer that the industry should receive a reasonable measure of protection.

3. The Board recommend that a protective duty of 7 annas per cwt. should be imposed on magnesium chloride. The Government of India accept this recommendation. The Government of India also agree with the Tariff Board that the period of protection should be fixed at 7 years at the expiry of which the question should be re-examined.

4. The Government of India are unable to accept the recommendation of the Tariff Board that power should be taken to increase the duty by executive action to offset any fall in import prices. In their view such a step requires special justification; and they are not satisfied that its application to magnesium chloride is necessary, for the price of this chemical in India has been stable for the last three years and according to the information supplied to the Tariff Board that price was not remunerative to the foreign manufacturer.

5. The Government of India propose to introduce legislation during the ensuing Session to give effect to the decisions stated in paragraphs 3 and 4 of this Resolution.

TARIFF INEQUALITY IN RESPECT OF THE MANUFACTURE OF METHYLATED SPIRIT.

In my last report I referred to this inquiry which had been referred to the Tariff Board, but the result of their investigations had not then been published.

In their report on the inquiry into the Sugar Industry the Tariff Board state:—

"We have no recommendation to make regarding the application of Messrs. Carew & Co. for the removal of tariff inequality on methylated spirit consequent on the present duty on molasses. The application has now been withdrawn since even if the duty was completely removed, the manufacture of methylated spirit in India would not at the present price of molasses be economically possible."

OTHER INQUIRIES WHICH HAVE BEEN REFERRED TO THE TARIFF BOARD.

Inquiry into the Paper Making Industry.—In my report for the year 1924-25 I referred to the report of the Tariff Board into the Paper and Paper Pulp Industries. As a result of their recommendations the Government of India imposed for a period of seven years, specific duties on certain classes of paper. These duties which were imposed by the Bamboo Paper Industry (Protection) Act, 1925, expire in 1932, and the Government of India have therefore referred to the Tariff Board the question as to whether further protection is still necessary in their notification No. 202-T (26) dated 26th March, 1931, which reads as follows:—

"Under the Bamboo Paper Industry (Protection) Act, 1925, protective duties were imposed on certain kinds of paper in order to develop the manufacture in India of paper from bamboo. These duties will expire on the 31st March, 1932, and before that date it is necessary that an enquiry should be held in order to ascertain how far the Act has achieved its purpose and whether the continuance of protective measures beyond that date is desirable. The Tariff Board is therefore requested to examine the question and to consider what protective measures (if any) should be continued after the 31st March, 1932. In making its recommendations the Tariff Board will take all relevant considerations into account including that stated in part (*b*) of the Resolution adopted by the Legislative Assembly on the 16th February, 1923.

"Firms or persons interested in the paper-making industry or in industries dependent on the use of paper who desire that their views should be considered by the Tariff Board should address their representations to the Secretary to the Board.

"The Government of India hope that the Tariff Board will be able to submit their Report by the 15th October, 1931."

The Tariff Board are at present receiving evidence*.

Inquiry into the Wire and Wire Nail Industry.—In my report for the year 1927-28 I referred to the Statutory inquiry into the Steel Industry which was undertaken by the Tariff Board. The Tariff Board recommended and the Government of India accepted their recommendation that the protective duty on wire and wire nails be discontinued. The Government of India has now received an application for the restoration of the protective duty and they have referred it to the Tariff Board in the following terms (Notification No. 362-T (11) dated 9th May, 1931):—

"The Government of India have received an application from Messrs. The Indian Steel Wire Products, Tatanagar, asking for the restoration of protection to the wire and wire nail industry. After careful consideration the Government of India have decided to refer the application to the Tariff Board.

In making the inquiry the Tariff Board will be guided by the principles laid down in the Resolution adopted by the Legislative Assembly on February 16th, 1923, and in particular will consider how its recommendations, if it makes any, will affect industries using wire and articles manufactured from it."

The inquiry by the Tariff Board will not be completed for some time*.

Inquiry into the Electric Wire and Cable (other than Paper Insulated Cables) Industry.—In my last report I referred to an investigation which the Tariff Board undertook into the tariff equality in respect of the manufacture of electric wires and cables. The Government of India have now received an application for protection to the manufacture of electric wires and cables, other than paper insulated cables, and in their Notification No. 38-(T) 20 dated 11th May, 1931, they have referred it to the Tariff Board. The notification reads as follows:—

"In pursuance of paragraph 3 of the Resolution by the Government of India in the Department of Commerce No. 3748, dated the 10th July, 1923 (Tariffs), the Government of India have decided to refer to the Tariff Board an application for protection to the manufacture of electric wires and cables, other than paper-insulated cables, which has been received from the Indian Cable Company Limited, Calcutta.

"In making its inquiry the Board will be guided by the principles laid down in the resolution adopted by the Legislative Assembly on the 16th February, 1923, and will consider:—

(i) whether the conditions laid down in the Report of the Indian Fiscal Commission are satisfied in the case of the industry and whether it should be protected;

(ii) if so, in what form and for what period protection should be given; and

(iii) how its recommendations, if any, will affect other industries."

The Tariff Board still have this inquiry in hand*.

* These enquiries have now been completed.

CHAPTER V.

AN ACCOUNT OF THE PROGRESS MADE DURING THE PAST YEAR IN CERTAIN OF THE MORE IMPORTANT IRRIGATION, HARBOUR, HYDRO-ELECTRIC AND OTHER PROJECTS IN INDIA.

1. IRRIGATION.

PUNJAB.

The Chief Engineer, Irrigation Works, Punjab, has courteously supplied the following note on irrigation projects in the Punjab :—

" The last note covered the period up to June, 1930, and the present note deals with the period ending June, 1931.

Sutlej Valley Project.

" The completion of the canals taking off at Ferozepore, Suleimanke and Islam on the Sutlej was continued. The works done consisted principally of the development of distributaries and watercourses, and call for no particular comment. Progress has, however, been delayed owing to the economic depression, particularly in agriculture which has hindered the sales of land and discouraged cultivation, and the consequent development of the project.

" The only important work which still awaits completion is the headworks at Panjnad, immediately below the junction of the Sutlej and Chenab Rivers, and the canals taking off therefrom.

" The extension to the original design of the main weir, which was decided upon after the accident to the weir at Islam in September, 1929, was finished before the beginning of this year's flood season, and there now remains only the diversion of the river, which will be carried out during the coming cold weather. This turning of so vast a stream as the Chenab (which at Panjnad has already absorbed the other four rivers of the Punjab), from its present course to the newly constructed headworks will be a fitting termination to the construction of the great Sutlej Valley Canal project, which has been estimated to cost nearly £18 million and to irrigate 5 million acres of land each year.

The Bhakra Dam Project.

" In this connection, the demarcation of rectangle lines and general surveys are being carried out. The project contemplates the utilisation of the surplus monsoon discharges of the River Sutlej.

The Haveli Project.

" A skeleton project estimate is now in course of preparation. The project is designed to improve the available supply for existing non-perennial and semi-perennial canals in the Multan and Muzaffargarh Districts, and in addition to extend irrigation in these districts."

SIND.—Lloyd (Sukkar) Barrage and Canals Construction Project.—I am indebted to the Director of Information, Bombay, for the following brief account of the progress made during the quarter ended 31st March, 1931, together with a general summary of the work done during the previous three quarters :—

" *Barrage Works.*—On the right bank, the top decking in gate-bridge spans Nos. 2 to 6 and road-bridge parapet and paving in Spans Nos. 6 to 14 were completed. The spandril masonry in gate-bridge spans Nos. 15 to 23 was raised from R.L.234 to R.L.238·5. Reinforcement in three road-bridge and

seven gate-bridge arches was laid and seven road-bridge and seven gate-bridge arches were cast in spans Nos. 24 to 31. Spandril filling in road-bridge spans Nos. 24 to 30 was completed and that in the gate-bridge spans was raised to R.L. 226. Seven gates and nine counterweights and gearings for five gates were erected and three gates and three counterweights were placed in position.

" On the left bank, the casting of gate-bridge arches in spans Nos. 33 to 41 was completed and cut stone parapets and footpaths of road-bridge were taken in hand. The spandril masonry of gate-bridge in spans Nos. 42 to 50 and the casting of road-bridge arches were completed. Six gates in spans Nos. 46 to 54 and 5 counterweights in spans Nos. 46 to 50 were erected.

" On the right bank, the excavation for the downstream concrete block apron and talus pitching of the head regulators of all the three canals was practically completed. One lakh cft. of pitching was completed in the head regulators of the Rice and Dadu Canals and eight hundred 1½ ton blocks were laid in the head regulator of the Rice Canal. The bottom, middle and top gates of the head regulator of the Rice Canal, the bottom gates of the head regulator of the Dadu Canal and the counterweights of the middle and the top gates of all the three head regulators were placed in position.

" On the left bank, good progress was made with the pitching in the bed and on the side slopes of the head regulators of the Eastern Nara and the Rohri Canal. The laying of cement concrete blocks in the head regulator of the Eastern Nara was completed. The middle and the bottom gates of all the head regulators were placed in position and about 60,000 cft. of cement concrete paving was completed. The work of laying cement concrete on the gate-bridge and the erection of top gates and gearing of the head regulator of the Eastern Nara were taken in hand.

" The dredging for foundations in both the right and the left bank cofferdams for divide walls and approach channels was completed and good progress was made with excavation by hand as also with pitching and superstructure masonry. The total quantities of work done during the quarter were as under :—

	Right bank.	*Left bank.*
Excavation by dredger	42·00 lakhs cft.	54·15 lakhs cft.
,, ,, hand	43·00 ,,	50·36 ,,
Driving permanent piling	43,000 sq. ft.	52,528 sq. ft.
Cement concrete in foundation ...	0·53 lakh cft.	0·45 lakh cft.
Stone pitching	15·30 lakhs cft.	16·65 lakhs cft
Superstructure masonry	1·16 ,,	1·06 ,,
Stones brought inside cofferdam ...	20·00 ,,	20·27 ,,

" Satisfactory progress was made with the excavation of earthwork in the head reaches of the Eastern Nara, the Khairpur Feeder East and the Rohri Canal coming within the boundaries of the Lloyd Barrage Circle, the total quantity excavated being 22 lakhs cft. Good progress was also made with the excavation of the Khairpur Feeder West. Large quantities of cut stone required for the barrage and a very large quantity of rubble limestone were quarried.

" The work done during the previous three quarters consisted of the completion of the 1929-30 season's work within the barrage cofferdam, the extraction of piling from the cofferdam and the construction of the divide wall cofferdams for the season 1930-31. The work on the superstructure of the barrage and head regulators was pushed on.

" The seven canal head regulators are now practically completed and it is expected that all underwater work on the divide walls will also be completed before the Abkalani of 1931. All underwater work in connection with the barrage proper has been completed and considerable progress made on the superstructure work and it is expected that the barrage will be ready to function early in 1932.

Right Bank Works.—" In the North-Western Circle the designs of the watercourses of all the distributaries and minors *ex* the Khirtar and Shahdadket branches and of four of the distributaries *ex* the Warah Branch were sanctioned. Satisfactory progress was made with the excavation of watercourses and also with the construction of regulators, falls, fall regulators and steel and masonry bridges. Good progress was made with the construction of syphons for the Mirwah and Mungirwah under the North Western Canal and the Begari syphon under the Khirtar Branch. Out of the 317 masonry structures to be constructed on main canals, branches, etc., 104 have been completed and 112 are in progress.

" The work done during the previous three quarters consisted of the survey and alignment of distributaries *ex* the main canals and branches, the acquisition of land, the excavation of main canals, branches and distributaries, the construction of steel and masonry bridges, regulators and other masonry structures.

" In the Western Circle the designs for about six hundred miles of main and branch watercourses and for minor channels *ex* the Dadu canal were completed. Good progress was made with the excavation of escapes at miles 90·7 and 122·1 of the Dadu Canal. The excavation of the Rice canal and the new cut for the Manchar drain and the widening of the Aral Manchar which is being utilised as the head portion of the Manchar drain from the lake to the new cut were continued. Two 30-B machines were employed on raising the banks of the Aral Manchar in the length which will be utilised as a feeder to the Manchar Lake, whilst two 50-B machines continued to work on the Manchar containing bank. The total quantity of earthwork completed on the Manchar drainage scheme both by machines and manual labour amounted to 281·28 lakhs cft. Repairs and extensions and improvements to the groyne at the lower Bhumb of the Gaj Nai and the bund across the Chhar Nai were taken in hand. Good progress was made with the construction of regulators and bridges. The total number of masonry structures to be constructed on main canals, branches, etc., is 323 of which 95 have been completed and 158 are in progress.

" The work done during the previous three quarters consisted of the preparation of fair plans and estimates for distributaries and minors *ex* the Dadu Canal, the preparation of a complete project for the Flood Protective Bund, preliminary investigations in connection with the alignments of watercourses, the excavation of main canals, branches, distributaries and minors both by machines and manual labour; the construction of groups of regulators, steel and masonry bridges, the excavation of the new cut to the Manchar drain and the taking of subsoil water observations.

Left Bank Works.—" In the Rohri Canal Circle, except for two channels, the survey and designs of channels were completed and their plans and estimates sanctioned. Good progress was made with the preparation of designs for watercourses and up to the end of the quarter designs for watercourses *ex* 199 channels had been sanctioned. Good progress was made with the excavation of earthwork both by machines and by manual labour and with the construction of regulators and bridges. Out of the 892 masonry structures to be constructed on main canals, branches, etc., 219 have been completed and 274 are in progress.

" The work done in the previous three quarters consisted of the preparation of designs for distributaries and minors, making investigations in connection with the alignment of watercourses, excavation of earthwork both by machines and manual labour, construction of buildings, groups of regulators, falls and fall regulators, and steel and masonry bridges, planting trees along canals and the acquisition of land.

" In the Eastern Nara Circle good progress was made with the work of nicking out the boundary trenches of the new distributaries and minors *ex* the Mithrao Canal. The survey and lining out of watercourses *ex* the Kandiari and other minors were completed. The excavation of the Nara Cut and the

widening of the Nara itself was continued by two large Ruston Dragline excavators. Good progress was made with the excavation of earthwork by manual labour on the Mithrao Canal and its distributaries. The head portion of the Khipro Canal was completed and the remodelling of the Thar Canal and the excavation of the Shahu branch and its minors were nearing completion. Good progress was made with the excavation of watercourses, the quantity completed amounting to 241 lakhs cft. of earthwork. Good progress was also made with the construction of buildings, regulators and masonry bridges. Out of the 327 masonry structures to be constructed, 291 have been completed and the remaining 36 are in progress.

" The work done during the previous three quarters consisted of the preparation of designs for distributaries and minors, the excavation of earthwork of the Mithrao, the Khipro, the Thar and the Hiral Canal systems, the new cut to the Nara, the widening of the Nara and the construction of the containing and the flood protective banks, the acquisition of land, and the construction of groups of regulators, building and masonry bridges.

General.—" The total quantity of earthwork done, both by dragline excavators and manual labour, in the four canal circles up to the end of March, 1931, on the main canals, branches, distributaries and minors and the approximate total amount of earthwork remaining to be done to complete the work are :—

Name of Circle.	Work done in crores cft.	Work remaining to be done (excluding watercourses) in crores cft.
North Western Circle	89·6	11·1
Western Circle	85·7	5·2
Rohri Canal Circle	208·5	31·2
Eastern Nara Circle	95·9	30·0
Total	479·7	77·5

The total earthwork done is equivalent to the excavation of a channel 454 miles long, 200 feet wide and 10 feet deep. Out of the 46 dragline machines employed on the scheme four have completed their task and the remaining 42 are still in operation. The daily out-turn of these machines varies between one lakh cft. of earthwork for the largest and 13,000 cft. for the smallest machine. The total capacity of all the 46 machines put together is about 74 tons of earthwork excavated and dumped per minute on the basis of 5½ days of 24 hours per week which is equivalent to the labour of 32,000 coolies employed the whole year round or of nearly 77,000 coolies employed for the normal working season in Sind consisting of five months. The total length of main canals, branches, distributaries, minors, etc., as per the latest revised figures is 6,116 miles of which 4,500 miles have been completed.

" During the year about 2,944 acres of land were acquired at a cost of Rs.2,49,000, that is, at an average rate of Rs.84 per acre.

" The rectangulation survey of the area under the command of the canals of the scheme was completed by the Survey of India. The further sub-division is being carried out by the staff under the Revenue Officer of this scheme.

" The Research Division, which was opened on 1st October, 1930, and which is under the direct control of the Chief Engineer, was engaged on making subsoil investigations on both the banks of the River Indus with a view to ascertain how far the opening of the barrage canals would lead to water-logging. This Division was also engaged on the designs of regulators and bridges and on carrying out experiments on the models of designs for regulators, Hume pipe culverts, syphons, etc., with a view to checking the designs in the light of information obtained from the experiments.

" The total expenditure incurred on the project to end of March, 1931, amounted to Rs.15·01 crores."

MADRAS. The Cauvery Mettur Project.—The following note of the progress made during the past year in this project has been kindly supplied by the Engineer-in-Chief.

" *Expenditure.*—Expenditure during the year is about Rs.85 lakhs, the total expenditure up to date being Rs.426 lakhs.

" *Dam.*—Excavation is practically complete. . . . About 17 million cubic feet of masonry has been built to the end of March, 1931, out of a total of about 54 million cubic feet.

" *Towers and Crushers.*—Erection has been completed and the towers and crushers are working satisfactorily. Besides the concrete laid by the towers a considerable quantity of roughstone masonry is being built with mortar mixed by preliminary mixers.

" *Surplus works.*—The arches and the roadway over the regulator will be completed in about 4 months. Erection of shutters and construction of the rear apron is in progress.

" *Hydro Electric Installation.*—Four rows of pipes 8 ft. 6 in. dr. have been fixed for working the turbines for the proposed hydro electric scheme at Mettur. Erection of the front shutter grooves and screens is in progress.

" *Tools and Plant.*—The following is the list of additional items of machinery and plant, purchased during the year :—

Victoria Mixers	4
Sentinel Locos	4
Three cubic yard side Discharge Wagons ...	50

" *Canal System.*—Major portion of the work has been completed."

BENGAL. Damodar Canal Irrigation Scheme.—The officiating Chief Engineer of the Irrigation Department of the Government of Bengal has reported on the progress of the scheme as follows :—

" The progress on the Damodar Canal Irrigation Scheme has been good. The headworks are approaching completion and it is expected that the only important work that will remain to be done after the end of the current working season will be the actual breast wall of the weir plus a length of about 600 feet of concrete in floor and this will not take more than four months of the next working season.

" As regards the canal itself work has proceeded briskly and it is hoped that the canal may be partially opened for irrigation during the monsoon of 1932. The main canal except for those portions which are being excavated by the two dragline excavators is very nearly complete, similarly the distributaries of the Main Canal are nearly finished.

" Work is proceeding on the two main branches, *i.e.*, the Branch Canal and the distributary No. 6 and it is expected that it will be possible to supply water to 50,000 to 60,000 new acres as well as to the already established Eden Canal by the monsoon of 1932."

2. HARBOUR WORKS.

Calcutta Port Extensions and Improvements.—I am indebted to Mr. T. H. Elderton, Chairman, The Commissioners for the Port of Calcutta, for the following report on the developments during the past year :—

" At the end of 1929-30 the berths covered by the sanctioned estimate for the first portion of King George's Dock had been completed and both dry docks had been brought into commission. During 1929-30 all the accommodation in the Port including that in King George's Dock was at times fully occupied, and if traffic had continued to increase, the construction of additional berths would have been begun in 1930-31. The serious slump in trade, however, rendered any increase of accommodation unnecessary, and during 1930-31 the work done at King George's Dock consisted of finishing off jobs which had already been begun and of a certain amount of excavation work, enabling low-lying land in the neighbourhood to be raised and generally improved.

" *Kidderpore Docks.—New 80 ft. Lock Entrance.*—In last year's report Sir Charles Stuart-Williams expressed the hope that this important work would be completed within the financial year 1930-31, but this hope was not realised. Certain difficulties were experienced at the river end of the lock and although these difficulties were satisfactorily overcome they caused considerable delay to the work and it is quite possible that the lock will not be brought into commission until October or November this year.

" Of the other works carried out during the year the most important was the lighting of the river between Garden Reach and Uluberia to permit of ocean-going steamers navigating this section of the river by night. The work was completed during the year and the lighted channel is now being used. The use of Uluberia Reach as an anchorage combined with the lighted channel means that outward-bound ships which formerly had to cross certain bars in this section of the river at or near low water in order to reach the Eastern Gut at high water will now be able to cross these bars at high water and the bars will cease to be obstacles to the movement of ships. Apart from this work, no new capital work of any importance was carried out during the year, but progress was made with works of improvement previously begun such as the extension of the jetties at the Shalimar Coal Depots and the construction of the river training wall at Sankral."

Bombay Port Trust Capital Works.—The Secretary of the Bombay Port Trust has provided the following note on capital expenditure during 1930-31 :—

" In consequence of the world wide depression of trade, accentuated in Bombay by the disturbed political situation in India during 1930-31, the revenues of the Port were adversely affected and the Trustees had to curtail their revenue and capital expenditure to a bare minimum. The amount expended on capital works during 1930-31 was approximately Rs.12 lakhs against an original budget estimate of Rs.31 lakhs. The principal works executed during the year were as follows :—

1. Completion of a new transit shed at No. 16 berth, Alexandra Dock.
2. Further expenditure on deepening the Alexandra Dock Entrance Channel.
3. Electric installations and improved subsidiary arrangements at the Pir Pao Pipe Line to allow of the discharge of bulk petrol at night and to increase the discharge capacity from 320 to 350 tons per hour in the case of bulk kerosene oil and from 134 to 150 tons in the case of bulk petrol.

" No new loan was raised by the Trustees during the year, the expenditure being financed from loan balances in hand. No new borrowings have been effected since 1924-25 and the interval of 6 years since the last loan flotation constitutes a record in the financial history of the Trust."

Karachi Port Capital Works and Improvements.—Mr. H. A. L. French, the Acting Chairman of the Karachi Port Trust,

has kindly supplied the following information on the progress of the West Wharf and other Capital Works during the past year :—

" *West Wharf Project.*—Two deep water berths complete with transit sheds and the necessary railway yards have been opened at the West Wharf and are working very successfully and economically. These berths are able to accommodate any steamer which can traverse the Suez Canal.

" They are equipped with the latest pattern 2-ton electric cranes which can deal very expeditiously with either imports or exports.

" A third deep water berth is completed and will be equipped with cranes and probably a transit shed when trade improves.

" *Reclamation Work.*—The reclamation of an area of low-lying marshy ground to the south of the present Thole Produce Yard is in progress. The total area to be reclaimed is about 240 acres of which nearly 60 acres have been completed.

" This will enable the present stacking area of the Produce Yard to be increased by 75 per cent. within two or three years and ultimately more than doubled.

" The reclamation is being carried out by pumping ashore practically all material dredged from the Harbour.

" *Fire Protection Thole Produce Yard.*—This scheme was completed early last year and has resulted in an almost total absence of fires since its execution.

" The Insurance Companies have accordingly reduced their rates of insurance for cotton stacked in this yard.

" *Other Works.*—The only other capital work of any importance is the extension of a storm water channel across the reclaimed area behind the West Wharf. This scheme is designed to prevent flooding of adjoining municipal roads and to improve the sanitation of the neighbourhood. The work is costing about one and a-half lakhs and is nearly completed."

Harbour Developments in the Madras Presidency.—The following note, which has been courteously supplied by Mr. R. C. Bristow, Harbour Engineer-in-Chief to the Government of Madras, shows the progress which has been made at Cochin and Tuticorin during 1930-31 :—

" *Cochin.*—The dredger ' Lord Willingdon,' after her usual overhaul, was engaged from 16th May to 25th July, in widening the Mattancherri channel and in dredging a berth for another temporary centre mooring, in addition to the seven moorings laid last year. The material removed was deposited in the already reclaimed areas at the southern end of the Venduruthy reclamation.

" The quantity of material removed was 334,095 cubic yards in 275 hours 47 minutes actual dredging time or an average of 1,211 cubic yards per hour.

" On completion of the above work, the dredger was put to work on the new turning basin in order to give more room for ships to turn at all states of the tides. On the 10th November, 1930, the first portion of the dredging in the basin was completed, when the dredger went into dry dock for the usual minor overhaul, before commencing maintenance work on the outer channel. The dredging of the remaining portion of the turning basin was, however, recommenced on 24th January, 1931, and completed on 4th March, 1931. The total quantity of material removed in the turning basin was 1,050,210 cubic yards and it was deposited within the area of 30 acres enclosed by a newly constructed reclamation wall on the western side of Venduruthy reclamation."

" The maintenance dredging in the approach channel to the harbour commenced on 8th December, 1930, and carried on practically day and night until the work was completed on the morning of the 13th January, 1931. The length of the channel redredged over its entire width of 450 ft. was

14,550 ft. In addition, 450 ft. of the northern cut (150 ft. wide) was redredged. The quantity of material removed from the channel was 1,219,400 cubic yards, the average depth in the channel after this season's dredging being 36·5 ft. at L.W.O.S.T. As in the last season there was no interference to shipping while the dredging was in progress.

" On completion of the maintenance dredging, the dredger was engaged for a week in widening the channel at the harbour mouth in order to improve the flow of outgoing tide. The quantity removed from this position was 81,360 cubic yards in 136 hours 48 minutes or an average of 598 cubic yards per hour, the low rate being due to very hard nature of the material.

" One temporary mooring buoy was put down in the inner harbour, making 8 moorings in all.

" In order to frame reliable estimates for fourth stage works, estimates for trial holes and borings were approved by Government and the work was started at the close of the year.

" The behaviour of the approach channel during the monsoon of 1930 was consistent with the records of the last three monsoons and quite satisfactory. The depth was nowhere seriously reduced and there was no stoppage of traffic.

" The Harbour Engineer-in-Chief was engaged personally in the design of the fourth stage works including bridges, wharves, transit sheds, warehouses, offices and residences and good progress was made during the last four months of the financial year.

" *Tuticorin.*—The scheme for the construction of a deep water harbour at Tuticorin has been abandoned for the time being."

The Port of Rangoon.—I am indebted to Mr. J. A. Cherry, C.I.E., Chairman of the Commissioners for the Port of Rangoon, for the following note on the progress made in the Port during 1930-31 :—

" The trade of the Port remains generally satisfactory although in common with all other Indian Ports there is a reduced volume of traffic following the world depression in commodity prices and restriction of business. For the year ended 31st March, 1930, 1,640 steamers with an aggregate net tonnage of nearly 4½ millions entered the Port; the figures show an increase of 76 in number and over ¼ million in net tonnage over the previous year. Of the total number of vessels entering the Port, 1,634 brought cargo for Rangoon and of this number 1,008 came alongside the Commissioners' wharves, pontoons and jetties to discharge.

" The sea-borne trade for the year ending 31st March, 1930, was 5·6 million tons (1929—5·38), of which 1·72 millions were imports (1929—1·59) and 3·87 millions were exports (1929—3·77). Preliminary figures for the year ended 31st March, 1931, are :—

	Millions.
Imports	1·55
Exports	3·67
Total	5·22

For the ensuing year the Commissioners have budgetted for a 20 per cent. fall in imports and, in view of the present civil disturbances in Burma, it would appear that this estimate will not prove to be unduly pessimistic. Inland traffic over the Commissioners' premises up to 31st March, 1930, showed very small decreases over the preceding year, while the rail-borne traffic registered a drop of some 50,000 tons for the same period.

" Progress during 1929-30 in connection with the development schemes for Port facilities was as follows :—

" *Wharves extension and reconstruction for sea-going vessels.*—Work continued in connection with the joining up of Sule Pagoda and Latter Street wharves by means of a ferro-concrete wharf. There was some delay to the work owing to the earthquake and communal riots in Rangoon in May, 1930, and the wharf was not completed until February, 1931, when it was formally opened by His Excellency Sir Charles Innes, K.C.S.I., C.I.E., I.C.S., Governor of Burma, in the presence of a large assembly representative of the various official and trading interests in Rangoon. The wharf is equipped with a double storey transit shed and six Babcock and Wilcox semi-portable 3-ton electric cranes. The transit shed is served by two electric cargo hoists and the wharf yard by a 10-ton transporter crane. On the completion of this berth, Sule Pagoda Wharf and Latter Street Wharf were renamed Sule Pagoda Wharves, and all the berths, shed and cargo gates renumbered.

" *Reconstruction and extension of Sule Pagoda Wharves.*—The survey of the underground condition of the site of the former Sule Pagoda Wharf and the proposed new line of wharf frontage has been continued and confirms the previous assumption that the foundation strata is in many places very unsatisfactory. The Commissioners' Chief Engineer in consultation with Sir Alexander Gibb and partners, the Commissioners' Consulting Engineers, is engaged on the preparation of designs for an immediate eastern extension of Sule Pagoda wharves and later for reconstructions of deteriorated berths.

" *Phayre Street Passenger Station.*—The construction of a Passenger Station at Phayre Street was undertaken owing to the necessity of providing alternative accommodation to that afforded by the two Barr Street Passenger Jetties which had had to be closed to traffic and removed to enable work to proceed in connection with the investigation of the site for the eastern extension of Sule Pagoda wharves. It is proposed at a later date to replace this Passenger Depot with a pucca structure which will be designed to harmonise with the Commissioners' Offices and to form the central feature of the garden layout of the river bank in that vicinity.

" *Railway Facilities.*—The improvement of the present facilities for rail-borne traffic to and from the Commissioners' premises continues in accordance with the Port Development Proposals adopted in 1925, and in addition to the four acres of Commissioners' land at Keighly Street which was cleared and transferred to the Burma Railways in exchange for the land comprised in the former Latter Street railway station, and now included in wharf enclosures, the Burma Railways have made over to the Commissioners an area of land at Botatoung as part of the major transaction, and this has enabled a much needed improvement in the Commissioners' workshop layout to be put in hand.

" *Workshop Extensions.*—During the year 1930, the Commissioners sanctioned expenditure for the re-layout and modernisation of their main workshops. The project includes the erection of new buildings, the replacement of obsolete machinery and the renewal of electrical power plant.

" *Lighting of Port Approaches.*—Consequent on the transfer to the Commissioners as from 1st April, 1929, of the responsibility for lighting the approaches to the Port of Rangoon, a scheme has been evolved for the maintenance of the three light stations, viz., China Bakir, Spit and Eastern Grove, with modern unattended Aga lightships on the China Bakir and Spit Stations and lighting apparatus at the Eastern Grove lighthouse. Expenditure of over Rs.5 lakhs is involved in the provision of three new light-vessels which are nearing completion in England and the necessary conversion set for Eastern Grove. The scheme includes the erection of a Wireless Rotating Loop Beacon on the coast about 12 miles from Elephant Point. This beacon will be the first of its kind to be erected in India and it follows closely the design of that developed at Orfordness by the Air Ministry and possesses the advantage that it can be used without the aid of direction finder apparatus on board ships. All that is needed is the ordinary wireless gear and a reliable stop watch. By

the introduction of this modern equipment for lighting and making known the approaches to the Port of Rangoon substantial savings are expected on the expenditure now incurred.

" *New Survey Launch.*—The Commissioners recently placed an order for a new sea-going survey vessel fitted with Echo sounding gear and capable of remaining away from her base for sufficiently long periods to carry out surveys of the sea approaches to the Port. As a result of the advance of the Irrawaddy Delta towards the sea, there is a marked tendency towards shoaling at the head of the Gulf of Martaban and this is more particularly noticeable in the deterioration of the Outer Bar at the mouth of the Rangoon River. The problem of the deterioration of the ship channels across the Outer Bar is receiving the attention of the Commissioners' Consulting Engineers, and proposals for remedial measures will be brought before the Commissioners at an early date.

" *New sea-going tug and pilot tender.*—Tenders have been received and a contract will shortly be placed for the construction of a new sea-going tug at a cost of some Rs.5½ lakhs to replace the existing vessel which has reached the end of her economic life.

" *Hydrometric Survey.*—In conjunction with the Public Works Department, Government of Burma, the Commissioners are engaged on a Hydrometric Survey of the Rangoon river system estimated to cost Rs.1,45,619 for that part of the work being carried out by the Commissioners. The work consists in the determination of the discharges of both water and silt into the Rangoon Harbour at various seasons. The survey required a good deal of preliminary work and training of staff and the first series of field observations were actually made in April, 1930. Observing stations are situated as far as 60 miles from Rangoon and the periodical field observations continue over an uninterrupted period of 24 hours. The computations involved in the extraction of results occupy the staff in the intervals between field work.

" *General.*—The reconstruction and extension of the wharf system remains the dominating feature of Port improvement, but a problem which is of great importance is the deterioration of the channels across the Outer Bar above referred to. In view of the prevailing trade depression and the difficulty of raising and providing for the service of capital money, the Commissioners have restricted work under this head to projects of an urgent or essential nature.

" Traffic figures for the year ended 31st March, 1931, are not yet in final form. In respect of tonnage handled over the Commissioners' premises, the results show a fall of 100,000 tons in imports, or about 10 per cent. over the preceding year ; exports, a drop of about 33,000 tons ; on landings of river-borne traffic a return of 437,000 tons shows a drop of nearly 20 per cent. on the previous year's total and river-borne shipments at 297,000 tons show a drop of 32,000 tons. The grand total of traffic over the Commissioners' premises is 3·3 million tons as against 3·5 million tons in the preceding year. As regards shipping 1,611 steamers with a net tonnage of 4,406,276 entered the Port as against 1,640 steamers with a net tonnage of 4,489,776 during the previous year."

Vizagapatam Harbour.—Mr. W. C. Ash, Engineer-in-Chief, Vizagapatam Harbour Construction, has very kindly supplied the following note on the progress of the Scheme during last year :—

" In so far as the present trade is concerned the conditions have been greatly modified during the last year as a result of the progress made in dredging. Cargo was, up to November, 1930, conveyed between ships and shore by means of surf boats of about 2-ton capacity, but by that date the crest of the sand bar had been removed and a draft of about 15 ft. at low water obtained. Arrangements had been made, in anticipation of this step, for a fleet of 50-ton lighters to be in readiness and the transit sheds and railway

and other facilities at the quays, subsequently to be used by ocean-going ships, were completed. These features are, therefore, now in full use and the surf boats have been dispensed with. The lighters have to traverse the channel in which dredging operations, for deepening and widening it, are in full swing, but this is managed without interruption to traffic.

" Dredging has mainly been carried out in the channel, though additional deep-water areas have also been provided in the vicinity of the quays. Extensive areas have been reclaimed in the past year mainly on the Eastern side of the Harbour, adjacent to the town of Vizagapatam and the road system has been well advanced. Portions of these areas have been laid out as office plots and other zones are being prepared for manganese ore dumps, quarters, warehouses, industrial plots, etc.

" A third storage shed, to provide for the expansion of trade, is approaching completion. It will temporarily be served by a lighter canal and will be provided with railway facilities similar to those at the other sheds.

" The graving dock is at present being utilised for the large suction dredger ' Vizagapatam ' and other dredging craft and the question of its adaptation for merchant vessels will be taken up when the need arises.

" The completion of the Raipur-Vizianagram line is expected by 1932, and this will provide a direct connection between Vizagapatam and the Central Provinces. The date by which ships will be able to enter the harbour will depend on the progress made on the dredging of the channel and work is being planned with a view to the utilisation of the harbour by the end of 1932."

Port of Chittagong.—The following note on the improvements made in the Port during 1929-30 and 1930-31 has been received from the Secretary to the Port Commissioners, Chittagong, to whom I am indebted :—

" The Port of Chittagong records various activities towards improvements during the years 1929-30 and 1930-31.

" The average depth of 14 feet at low water has been maintained on the bars with the ordinary working hours of the dredger ' Patunga.'

" The number of ships detained on account of insufficient water was 3 during 1929-30, and 7 during 1930-31.

" The following works constitute the River Training Scheme adopted by the Port Commissioners during the two years :—

(1) The extension of Cutting Bend Revetment to Gupta Point over a length of 2,000 lineal feet. The work was completed in the year 1929-30.

(2) An amended scheme of River Improvement Works as approved by the Consulting Engineers received Government sanction in July, 1929, as follows :—

	Rs.
(*a*) Revetment along right bank at Patunga	13,23,000
(*b*) A stone apron across Juldia Channel, estimated cost ...	10,27,000
	23,50,000

(*a*) The work of Patunga Revetment was commenced in November, 1929, and had almost attained its completion at the close of the year 1930-31.

(*b*) A preliminary investigation in connection with the Juldia Channel was only carried out at the close of the year 1930-31.

(3) Government sanction was also received in February, 1931, for revetment along the left bank of the Karnafuli River at Kolagaon over a length of 4,000 lineal feet at an estimated cost of Rs.1,81,500. The work was commenced in the last week of March, 1931.

" The following are the works done and considered by the Port Commissioners towards lighting arrangements in the course of the two years :—

(1) Government sanction has been obtained for an improved light to be installed at Kutubdia at a cost of Rs.8800/-.

(2) The Juldia Light has been transferred to Patunga Point.

(3) A scheme of night lighting of the river is also under contemplation."

3. HYDRO-ELECTRIC SCHEMES.

The Punjab Hydro-Electric Scheme, known as the Uhl River Project.—Progress on this Scheme continued throughout the year. A series of informative articles, illustrated by photographs relative to the progress of the Scheme, which were published in the " Civil and Military Gazette " at the end of the year 1930, have been reprinted in booklet form. A copy of the booklet, together with copies of the four quarterly progress reports submitted to the Punjab Government during the year 1930-31, are on file in the Department of Overseas Trade, London, where they may be consulted by interested firms.

Hydro-Electric Developments in the Madras Presidency.—Mr. H. G. Howard, the Chief Engineer, Hydro-Electric Department of the Government of Madras, has very courteously supplied the following note on the developments during 1930-31 :—

" *Pykara Scheme.*—Work on the construction of the Pykara Scheme constituted the main activity of the Hydro Electric Development Department in Madras during the year. In the note for last year it was mentioned that the Scheme was sanctioned by the Secretary of State for India in September, 1929, and details of the plant and equipment were given. Construction work was in full swing by the middle of the year under report and steady progress has been maintained.

" The Civil Engineering Works have reached an advanced state of completion and the pipe line and surge tank are being erected.

" Orders for penstocks, power house machinery and transmission line and sub-station equipment were placed during the year. In view of the importance of the contracts, the Chief Engineer was deputed to England in June, 1930, to select the machinery and place orders. Plant to the value of about Rs.30 lakhs was then ordered. The majority of the equipment including gates, valves, pipe line, generators, transformers, switchgear, transmission line and sub-station material will be of British manufacture. In value, about 70 per cent. of the orders placed at the time went to England and the rest abroad.

" The materials are beginning to arrive and will be erected in 1931-32.

" A metre gauge inclined haulage way, about 10,000 feet long, is being erected along the hill slope to convey men and material between the headworks and the power house and will be completed before June, 1931.

" Preliminary work is proceeding on the power house building, transmission line routing and substation buildings.

" From the progress made so far, it is expected that the scheme will be completed at the scheduled time, *i.e.*, end of 1932 and within the estimated cost.

" Power is expected to be distributed mainly in the Coimbatore District at the outset.

" The rates for power contemplated are attractive and the advantage of the District, such as a favourable climate, cheap and abundant supply of satisfactory labour, good water supply and railway communications, cheap

factory sites, etc., should appeal to industrialists wishing to establish factories for the manufacture of articles from the raw products of the district such as cotton, ground nuts, etc.

" *Glen Morgan Scheme.*—This Scheme, originally intended for the supply of power for the construction works at Pykara, was completed in November, 1929, and has been in continuous operation since. A maximum of 1,650 h.p. is available from the plant and the surplus after meeting the needs of the Pykara Construction Works, is sold to the Municipalities of Ootacamund and Coonoor and a few tea estates nearby. The revenue derived from this sale is substantial and the small Scheme considered independently is already yielding a very good return on the investment.

" *Mettur-Erode-Salem Scheme.*—Sanction was accorded to this Scheme in April, 1930, for Rs.5·5 lakhs and it was hoped to give electric supply to the towns of Salem and Erode within a year, but due to various causes, construction was held up and it was not until September, 1930, that contracts for the construction of the transmission lines and substations could be let. Messrs. Callender's Cable and Construction Co. are the contractors and work is proceeding. Supply to the towns is expected to be given before September, 1931.

" *Investigation Work.*—Investigation of possible power sites with a view to future developments continued at three places ; Kolab, Kumbar and Periyar.

" A first-class scheme is feasible at Kolab, about 100 miles from the port of Vizagapatam, but the present demand for power in the neighbouring area is poor. It is considered economically unsound to develop the site only for the immediate demand and it is estimated that a minimum load of 8,000 k.w. increasing to 24,000 k.w. in ten years is necessary before any satisfactory scheme is possible. The prospects of obtaining this load are bright.. The country round about is rich in potential wealth in the way of minerals and timber, and the extension of the Bengal Nagpur Railway to Raipur in the Central Provinces and the opening of the fine harbour at Vizagapatam are expected to lead to big industrial developments. These will need cheap power and this could be available at Kolab. Enquiries from capitalists and industrialists interested in developing the natural resources of the area will receive the careful attention of the Hydro-Electric Department of the Government of Madras.

" Hydro-metric studies are being continued at a number of possible power sites."

Ceylon Electrical Developments during 1930-31.—The Director of Electrical Undertakings to the Government of Ceylon has very kindly supplied the subjoined note on developments during the past year :—

" A further five static sub-stations have been erected and equipment installed. Plant extensions include a 500 k.w. frequency changer and a 250 k.w. rotary converter.

" The development of the 400-230 volt cycle 3-phase distribution has been pushed forward as rapidly as possible to replace the old 100 volt single phase system, and to extend supply into new areas over 38 miles of underground and overhead mains have been or are being erected and put into service.

" A large number of new consumers were connected and a considerable power load obtained on the three phase supply, the increase of load being such as will necessitate the addition of new generating plant for the Stanley Power Station at a very early date if the growing demand for electric power for all purposes is to be met.

" The Stanley Power Station was put out of action by abnormal floods in May, 1930, the damage done being so extensive that supply from this station was entirely cut off for a period of 16 days, and supply had to be restricted

until October. This caused a severe set-back to the development of load during 1930, which is, however, being made up in 1931.

" The universal trade depression may have some effect in slowing development for a time, but so far the progress made has been very satisfactory. There seems to be a very good prospect for the electrical trade, particularly for lighting, both in Colombo and in small towns near Colombo supplied from the E. H. T. mains now being extended by Government from the Stanley Power Station to supply distribution systems established by various local authorities north and south of Colombo.

" A large quantity of material for the northern and southern transmission lines and extensions thereto, including transformers and sub-station equipment, were imported through the Crown Agents for the Colonies. Materials for further extension this year have already been ordered and a further extension is proposed for next year. This will be similarly dealt with through the Crown Agents.

" Materials required for small town schemes, of which several are being done each year, and which include engines, alternators, switchgear and distribution line material, are tendered for locally and the materials for such installations are imported by the agents in Ceylon of well-known manufacturing firms. In the same manner the materials required for the electrical wiring of Government buildings in out-stations are imported by local contractors.

" A large quantity of stores for electrical maintenance and general work are imported annually. These are obtained by special indents through the Crown Agents, but small quantities urgently required are obtained locally through the Colonial Storekeeper from local firms importing materials from accredited manufacturing firms.

" A large amount of material and equipment will be required for the electrification of the new Railway Workshops at Ratmalana, including cables, transformers, etc. These will be indented for by the railway through the Crown Agents for the Colonies.

" The question of proceeding with the Hydro-Electric Scheme in the Aberdeen-Laxapana valley was shelved pending the election of the new State Council. No definite statement can be made as to the date when the question of reconsidering the scheme will be brought up."

4. OTHER WORKS.

The Calcutta Chord Railway and the Bally Bridge.—The Engineer-in-Chief, Calcutta Chord Railway, has very kindly supplied the following note showing the progress made during 1930-31 :—

" The construction of the Calcutta Chord Railway has progressed during the year 1930-31 very satisfactorily and before the close of the current year it is expected that the project will be completed giving then through connection between the Bengal coalfields and the new King George's Docks, connection between the East Indian and the Eastern Bengal Railways and also road connection from one side of the Hooghly to the other—from Bally to Barnagore—which will be an additional crossing for road traffic to the only present connection over the Howrah Bridge.

" The erection of the spans of the Bally Bridge that had to be floated from the erection staging to the various piers has been completed and there remains only the erection of two spans which, once erected, will remain in position.

" The approaches to the bridge covering a distance of about 4 miles of double track on each side of the river have been completed and in fact girder erection of the minor bridges over roads, canals, etc., in these 8 miles of approaches has already commenced, there being only two of these bridges, *i.e.*, those over the East Indian and Eastern Bengal Railways main lines that remain to be completed."

Bombay Development Schemes.—The following information has been courteously supplied by Mr. J. F. Gennings, the Director of Information to the Government of Bombay :—

" *Back Bay Reclamation Scheme.*—The following important works in connection with the scheme were undertaken during the year 1930-31 :—

Name of works.	Approximate amount spent during 1930-31. Rs.
1. Construction of a parapet wall along the sea wall in blocks 1 and 2	80,081
2. (i) Dry filling to complete block 1	60,805
(ii) Dry filling to complete block 2	3,51,015
(iii) Dry filling block 7	2,53,768
3. Grassing the recreation grounds in block 1	22,025

" Total expenditure incurred during 1930-31 on original works pertaining to the project amounts to Rs.8·38 lakhs approximately, against the budget provision of Rs.15·54 lakhs, The provision for works on the schemes made for 1931-32 is Rs.1·91 lakhs. In view of the present financial situation the construction of the proposed roads in the reclamation area has been postponed for the present. The provision for expenditure on roads during 1931-32 has been restricted to the cost of lining out and kerbing only.

" *Industrial Housing Scheme.*—The works carried out during 1930-31 in connection with the Industrial Housing Scheme related to minor alterations in the development chawls necessary to suit the convenience of the bodies or persons who were provided with accommodation in the chawls.

" *Suburban Development Schemes.*—The works in the Suburban Development Schemes related to minor developments such as filling in of plots, road construction and lighting of roads in the land schemes of the late Development Department and small extensions of pipe lines in the Salsette and Ambernath Water-Supply Schemes. The expenditure incurred on these works under " 42-Bombay Development Scheme " during 1930-31 amounted to about Rs.58,600.

" *Juhu Aerodrome.*—The work relating to the preparation of the aerodrome site at Juhu estimated at Rs.8,57,441 was undertaken by this Department on behalf of the Government of India. The entire work is to be completed by the 15th May, 1932. The expenditure actually incurred on the project up to the end of April, 1931, amounts to Rs.1,88,000."

The Howrah Bridge.—The following information has been kindly supplied by Mr. T. H. Elderton, Chairman, The Commissioners for the Port of Calcutta :—

" No decision was arrived at during the year regarding the construction of a new Howrah Bridge. Reports and preliminary estimates for a floating bridge and also for a cantilever bridge were forwarded by the Port Commissioners as Bridge Commissioners to the Government of Bengal during 1929-30, but Government decided to re-open the question whether a bridge on piers would be injurious to the river. A committee was appointed to consider the matter, but the report of this Committee has not yet been published."

Rangoon Water Supply Scheme.—In my report for the year 1927-28, I referred to schemes at that time under investigation for increasing the water supply of Rangoon. Although a certain scheme was recommended for adoption, nothing further was done

at the time due to the fact that steps had been taken to combat the inadequacy of the existing supply.

Further surveys have taken place since that date and Mr. A. E. Mann, the Chief Engineer of the Corporation, has recently submitted a revised scheme known as the " Hlawga Low Level Lake Scheme " to the Corporation. This scheme has been examined by Messrs. Williams & Temple, Consulting Engineers, Calcutta, whose conclusions, summarised, are :—

(*a*) The site for an impounding reservoir proposed by Mr. Mann is suitable for the purpose. The geological formation under the proposed lake is favourable as regards watertightness, and good material exists on the spot for the construction of a dam.

(*b*) The estimated run-off based on a series of 5 consecutive dry years is sufficient for a supply of 23·2 million gallons per day. This quantity according to Mr. Mann's estimate of the increase of population and the *per capita* consumption (which we believe to be probably on the safe side) will be sufficient for Rangoon until the year 1960 when it will, if the increase expected takes place, be necessary to augment the supply by pumping from the Pazundaung Creek or elsewhere, or by obtaining a supply from another catchment.

(*c*) The lake will be comparatively shallow and there will probably be more vegetable matter in it than in the existing Hlawga lake. Whilst it is not likely to be sufficient seriously to affect the quality of the water, filtration would appear essential.

(*d*) It will be advisable not to draw the lake down below 5 feet from the bottom. The storage above this level in the intended reservoir will be more than sufficient for the supply stated above. This appears satisfactory and the capacity proposed should remain unaltered.

(*e*) The overflow weir of the lake should be 600 feet long. To prevent any possibility of over-topping, if a heavy rainstorm should coincide with a high wind, there should be a laterite rubble wall about 2 feet high along the inside of the top of the dam.

(*f*) The present method of supplying Rangoon by the system of a high pressure supply between 4 p.m. and 8 a.m. and a low pressure supply between 8 a.m. and 4 p.m. will continue, and the filters are to be put at a level which will allow the filter water to gravitate to Rangoon during the latter hours.

(*g*) In the first instance the works should be made capable of supplying 17 million gallons per day, which is estimated to be sufficient until the year 1946. Additions will then be required to the pumps, filters and tanks which will enable the full supply of 23·2 million gallons per day to be given.

(*h*) The cost of the initial portion of the scheme with electrically driven pumps may be estimated at Rs.149,98,000, and, with the additions necessary to give the full supply, Rs.158,03,000. The recurring charges, on the assumption that the loan for the works will be obtained at 6 per cent. repayable in 30 years, will be 3·88 annas per 1,000 gallons for the initial scheme and 3·23 annas for the full supply.

(*i*) The cost of alternative schemes for pumping by steam or oil engines are shown in Appendix 5. The possibility of placing the filtered water engines at Yegu and constructing the main from the head works at Yegu as a reinforced concrete gravity main has also been considered. For the present no reason is seen to recommend departing from the proposal to pump by electricity, but the other alternatives can be reconsidered at a later stage.

The following extract is taken from the report of the Consulting Engineers whose conclusions are summarised above :—

" The reasons that have led us to the above conclusions (and others set forth more particularly therein) are explained in the foregoing report. We must, however, make it clear that although we have investigated the project

as completely as we can with the information now available, it is not possible that at this stage our recommendations should be in all respects final. The details of a scheme of this magnitude must necessarily undergo considerable modification as it proceeds through its successive stages. We are, however, satisfied that the project put forward by Mr. Mann is in its main features sound, that it will supply sufficient water for Rangoon for the next 25 to 30 years at a not excessive cost. We have not had the opportunity of investigating any of the alternative projects that have been worked out, but if the estimates in the reports are to be accepted, they are more expensive than the scheme we have been considering. We do not, therefore, think that the Corporation of Rangoon need have any hesitation in proceeding with it as early as possible."

The scheme came up for consideration at a meeting of the Corporation at the beginning of August, 1931, when it was resolved:—

> "That the Chief Engineer be asked to prepare his final report on the scheme with necessary details without prejudice to these reports being considered at a later date."

A copy of the report of the Chief Engineer to the Rangoon Corporation on the "Hlawga Low Level Lake Scheme" and a copy of the report of the Consulting Engineers are on file in the Department of Overseas Trade, London, where they may be consulted by United Kingdom firms interested.

CHAPTER VI.

DETAILED EXAMINATION OF THE LEADING IMPORT TRADES WITH SPECIAL REFERENCE TO CHANGES IN THE CHARACTER, VOLUME AND ORIGIN OF THE IMPORTS DURING THE FISCAL YEAR APRIL 1st, 1930, TO MARCH 31st, 1931*.

NOTE.—Unless otherwise stated, the statistics in this section are drawn from the publications of the Department of Statistics, Government of India, and relate to imports on private account only. Since all Indian statistics are now given in rupees and not in sterling, and in view of the labour which would be involved in converting into sterling, the lakh of rupees (Rs.100,000 or £7,500 at 1s. 6d. exchange) has been taken as the usual unit. It is fully realised that this is not so convenient a unit as the £ sterling.

MANUFACTURED AND MAINLY MANUFACTURED GOODS.

Cotton Textiles.—*Yarns.*—As a result of the combined effect of the severe economic depression and the general boycott of foreign textiles, the total imports of cotton twist and yarns fell from 43,882,041 lbs. valued at Rs.600 lakhs in 1929/30 to 29,139,915 lbs. valued at Rs.308 lakhs in 1930/31. Early in the year, the members of the Bombay Millowners' Association agreed to discontinue the

* A summary of later statistics will be found in "A Survey of the Import Trade of India during the six months 1st April to 30th September, 1931," copies of which may be had by interested firms on application to the Department of Overseas Trade, 35, Old Queen Street, S.W. (Ref. C. 3765).

practice of using foreign yarns of types which could be manufactured in India and to cease the importation of all except artificial silk and mercerised yarns. The Ahmedabad Millowners' Association went one step further and practically all the mills in Gujerat stopped the use of imported cotton and artificial silk yarn and are now producing cloth only from yarns spun in India. This movement, synchronising with intense depression and political agitation in the handloom weaving districts, brought about a slump in the imported yarn market which is unprecedented.

The following table gives the imports of grey yarns arranged according to counts:—

Counts.	1929-30 lbs.	1930-31 lbs.
Nos. 1 to 10	113,280	Nil
,, 11 to 20	693,126	262,797
,, 21 to 30	393,919	235,887
,, 31 to 40	15,512,070	13,131,328
Above 40's	7,195,859	3,094,016
Two folds	4,612,442	3,173,490
Total imports (grey)... ...	28,520,696	19,897,518

It will be noted that the reduction is most severe in 11's to 20's—this probably reflecting conditions among the handloom weavers—and in 40's and above, which were formerly largely used both by the mills and by handlooms. The falling-off in 11's to 20's has been entirely borne by the United Kingdom. The United Kingdom supplied practically all the imports of 21's to 30's. In the range from 31's to 40's (which are largely 32's and 40's) imports from the United Kingdom fell by nearly 2 million lbs. and those from Japan by nearly 700,000 lbs. Other countries (mainly China), on the other hand, increased their share by 159,000 lbs. Counts above 40's were almost solely drawn from the United Kingdom spinners who, accordingly, lost over Rs.73 lakhs worth of business. Imports of United Kingdom twofolds fell from 1,176,093 lbs. to 808,565 lbs., Japanese from 2,043,017 lbs. to 825,702 lbs., whereas other countries (mainly China) actually increased their shipments from 1,393,332 lbs. to 1,539,223 lbs. The reduction in the imports from Japan is noteworthy but has probably been made good by the substitution of twofolds manufactured in the Chinese mills under Japanese ownership.

The next table sets forth the details of the imports of bleached yarns:—

Counts.	1929-30 lbs.	1930-31 lbs.
Nos. 1 to 20	2,606	1,290
,, 21 to 30	62,974	13,383
,, 31 to 40	1,612,602	946,167
Above 40's	1,321,509	865,014
Twofolds	2,279,513	2,148,661
Total imports (white) ...	5,279,204	3,974,515

The heavy decline in 31's to 40's was entirely borne by United Kingdom spinners, their shipments being reduced from 1,556,102 lbs. to 928,639 lbs. Similarly, in counts above 40's their share fell from 1,289,509 lbs. to 824,854 lbs. Imports of United Kingdom bleached twofolds were, on the other hand, well maintained, declining only slightly from 1,791,244 lbs. to 1,749,522 lbs. Imports of Japanese twofolds dropped from 467,227 lbs. to 390,825 lbs.

Coloured yarns were imported as follows :—

Counts.	1929-30 lbs.	1930-31 lbs.
Nos. 1 to 20	216,703	185,335
,, 21 to 30	230,858	228,893
,, 31 to 40	2,922,923	677,616
Above 40's	455,672	283,331
Twofolds	499,452	356,372
Total imports (coloured) ...	4,325,608	1,731,547

The United Kingdom supplied all the coloured yarns below 31's. In the range of 31's to 40's, its aggregate export fell from 1,661,759 lbs. to 565,954 lbs., while supplies from other countries (mainly Switzerland, Italy and Germany) fell sharply from 1,208,764 lbs. to 107,662 lbs. Counts above 40's and twofolds were almost entirely drawn from the United Kingdom.

Imports of mercerised yarns are almost exclusively confined to twofolds, the total arrivals of which fell from 5,661,749 lbs. to 3,489,235 lbs. The Japanese practically control this trade and their shipments fell from 5,371,430 lbs. to 3,420,352 lbs. The United Kingdom share fell from 288,209 lbs. to 68,799 lbs.

The sources of supply of yarns of all kinds were as follows :—

Principal countries of consignment.	1929-30		1930-31	
	lbs.	Rs. (lakhs)	lbs.	Rs. (lakhs)
United Kingdom	20,111,892	2,96	10,314,913	1,27
Netherlands	35,844	½	15,015	¼
Switzerland	694,410	10	73,600	1
Italy	1,428,840	16½	64,435	¾
China (including Hongkong)	10,574,713	1,11	11,743,238	96
Japan	10,870,160	1,64	6,894,903	83
Other countries	166,182	2	33,811	—
Total	43,882,041	6,00	29,139,915	3,08

It is clear that United Kingdom yarns have borne the major share of the reduction, as might be expected in view of the greater intensity of the boycott directed against them. Japanese spinners also suffered severely but have generally maintained the shipments

from their mills in China. It will be noted that the weight of yarn imported from China actually increased, but there was a drop in values due to lower prices.

Indian Yarn Production.—The imports of cotton yarns, however, provide merely a fraction of the demands of the country, which are increasingly being met by the Indian mills.

	Imports in lbs. (1,000)	Indian mills. Production in lbs. (1,000)
Annual average for the 5 years—1909-10 to 1913-14	41,794	646,757
1913-14 (pre-war year)	44,171	682,777
1927-28	52,345	808,940
1928-29	43,766	648,296
1929-30	43,882	833,560
1930-31	29,140	867,045

The next table compares by counts the quantities of imported cotton twist and yarn with the quantities produced in Indian mills :—

	1913-14 (pre-war year)		1927-28		1928-29		1929-30		1930-31	
	Imports.	Pro-duction.	Imports.	Pro-duction.	Imports.	Pro-duction.	Imports.	Pro-duction.	Imports.	Pro-duction.
Cotton twist and yarn—	lbs. (1,000)	lbs. (1,000)	lbs. (1,000)	lbs. (1,000)	lbs. (1,000)	lbs. (1,000)	lbs. (1,000)	lbs. (1,000)	lbs. (1,000)	lbs. (1,000)
Nos. 1 to 20	1,254	492,693	2,465	494,800	1,098	382,024	1,047	493,382	454	513,739
,, 21 to 25	896	123,995	416	182,235	548	140,175	290	181,245	251	166,110
,, 26 to 30	3,686	42,999	439	80,836	223	72,838	395	90,579	227	93,345
,, 31 to 40	23,657	19,712	27,305	33,757	19,937	37,488	20,050	46,365	14,755	60,747
Above No. 40	7,859	2,699	8,040	11,142	9,331	10,029	9,013	15,279	4,273	27,311
Two-folds (doubles)	—	—	13,633	—	12,604	—	13,053	—	9,170	—
Unspecified descriptions and waste	6,819	679	47	6,170	25	5,742	34	6,710	10	5,793
Total	44,171	682,777	52,345	808,940	43,766	648,296	43,882	833,560	29,140	867,045

It will be remarked that just under 90 per cent. of the total Indian mill production is still in counts below 31's (mainly in 20's, 21's, 22's, 24's and 30's). A slow tendency towards finer spinning has been evident for some years. This has received a decided impetus during the past year. The production of 31's to 40's rose from 46 to 60,000,000 lbs., while production of yarn above 40's nearly doubled from 15 to 27,000,000 lbs. Generally speaking, the Indian mills are likely to continue the production of those counts which can be spun from Indian cotton. The Indian Tariff Board expressed the opinion that little if any cotton grown in India was suitable for spinning twist finer than 36's or weft yarn finer than 40's and that about 19 per cent. of the Indian crop was suitable for spinning twist from 30's to 36's and weft from 34's to 40's. The past year, however, has witnessed a very great expansion in the imports both of American and particularly Egyptian cotton. Imports from the U.S.A. rose from 1,689 to 9,756 tons and those from Egypt from 511 to 21,343 tons. The more recent heavy fall in raw cotton prices and consequent reduction of the parity between the prices of American and Indian cottons is likely to give a further stimulus to the imports of American and Egyptian cotton and also to the spinning of finer counts. Ahmedabad has recently led the way in this connection. In 1930/31 no less than 20 per cent. of the total production of the Ahmedabad mills was in counts above 30's and 8 per cent. in counts above 40's. The production of yarns above 40's rose from 6 to 10,500,000 lbs. last year. The newer mills in Ahmedabad are being equipped with the most modern high draught, tape driven, ring frames purchased from Lancashire textile machinists at the very low prices now ruling. Four new mills were started in Ahmedabad during the year and a further five cotton spinning companies have been registered since March, 1931.

The Bombay Millowners' Association in their report for 1930 state that " yarn markets showed a continuous decline, and the offtake was also unsatisfactory. The steadiness of cotton in September and October gave some confidence to the market, but with the decline that set in in cotton, yarn markets also became demoralised once again, and demand tapered off. The price of 10's and 20's yarns were 8 annas and 10 annas 9 pies a lb. respectively at the beginning of the year, and these continuously declined until prices at the end of the year touched their lowest level, viz., 5 annas 9 pies and 7 annas 6 pies respectively."

Piecegoods.—The following table shows the *quantities* of the three main classes of piecegoods imported during the last pre-war year and during the past four years :—

Year.	Grey (unbleached)	White (bleached)	Coloured, printed or dyed.
	(All in million yards)		
1913-14	1,534·2	793·3	831·8
1927-28	875·5	556·5	504·8
1928-29	838·6	554·1	506·9
1929-30	925·5	473·6	483·5
1930-31	365·0	271·6	245·7

The next statement gives the *values* of the three main classes in the last pre-war year and during the past four years :—

Year.	Grey (unbleached)	White (bleached)	Coloured, printed or dyed.
	£	£	£
*1913-14	16,966,515	9,523,204	11,907,683
†1927-28	15,936,124	11,562,692	13,143,102
†1928-29	15,143,709	11,501,337	13,011,160
†1929-30	15,694,355	9,956,641	11,359,972
†1930-31	5,150,163	4,653,855	5,113,835

*At exchange of 1*s.* 4*d.* †At exchange of 1*s.* 6*d.*

The general causes of the phenomenal slump in imported piece-goods are dealt with at length in Chapter I and the effects of the crisis on the Lancashire position in India are treated in detail in Chapter II. The reduction of India's purchasing power consequent upon a steady fall in the prices of her staple products had been a marked feature of the year 1929/30. The still further catastrophic fall in the agricultural prices in the year 1930/31 almost brought business to a standstill. The stage was therefore set for a most difficult period of trading when, in April, 1931, the boycott movement was launched by the Indian Congress, directed against all imported textiles in general and United Kingdom goods in particular. Markets were closed in the main ports and distributing centres, agreements not to undertake forward business were signed by most of the principal dealers and stock could only be cleared with the greatest difficulty. The result was that, once the moderate imports of goods ordered before April, 1930, had been received, further arrivals were on a very small scale and the stocks throughout the country were reduced to a very low level. There is little doubt that, had imports not been compulsorily reduced as a result of the boycott, we should have been faced to-day with heavy stocks of high priced goods, which could not possibly have been cleared owing to general trade stagnation, and which would probably have brought about repudiation of contracts and a similar state of affairs to that obtaining in 1921/22.

The following table gives the declared value per yard of the three main classes of piecegoods in 1913/14 and during the last four years :—

Cotton piecegoods.	1913-14	1927-28	1928-29	1929-30	1930-31
	Rs.As.Ps.	Rs.As.Ps.	Rs.As.Ps.	Rs.As.Ps.	Rs.As.Ps.
Grey (unbleached) ...	0 2 8	0 3 11	0 3 10	0 3 7	0 3 0
White (bleached) ...	0 2 11	0 4 5	0 4 5	0 4 6	0 3 0
Coloured, printed or dyed	0 3 5	0 5 7	0 5 6	0 5 0	0 4 5

Here we find the clue to the inevitable falling-off in cotton piecegoods. The declared values per yard of all kinds of imported textiles in 1930/31 were approximately 15 per cent. at the pre-war values. The official index number of the priced cotton manufactures in Calcutta on March 31st, 1931, was 121, *i.e.* 21 per cent. above pre-war rates. On the other hand, the general Calcutta index number for all commodities on that date was 100, while the index numbers of India's principal crops were as follows—cereals 76, pulses 92, tea 44, hides 80, raw cotton 93, and raw jute 45. It is obvious that as the ryot is only receiving prices well below the levels of 1913/14 for his staple crops, prices which in most cases are below the actual cost of production, and as he has certain definite fixed cash payments for rent, rates, taxes, &c., to make, his available balance for the purchase of such articles as cotton cloth is reduced to an even greater extent than would be expected from the fall in price of his agricultural products alone. It is not surprising, therefore, that with a cloth index number of 121, there has been such a phenomenal fall in the trade. The political agitation and boycott undoubtedly aggravated the situation and threatened to undermine the whole position of the United Kingdom exporter in the market. The basic cause of the slump is, however, the economic one stated above. Until prices of agricultural produce are stabilised at a higher level and cloth prices approximate more closely to the general index figure, there would not appear to be much hope of a material advance in the consumption of cotton piecegoods in India.

VARIETIES OF PIECEGOODS IMPORTED.

Grey (unbleached).	1913-14 (pre-war year).	1928-29	1929-30	1930-31
		(All in million yards)		
Dhooties, saris and scarves...	806·1	486·7	501·1	171·0
Jaconets, madapollams, mulls, etc.	150·4	78·9	53·0	19·3
Longcloth and shirtings ...	545·4	252·0	340·1	166·3
Sheetings	0·2	6·5	14·7	4·1
Drills and jeans	21·3	11·8	13·4	2·4
Other sorts	10·8	2·7	3·2	1·9
Total	1,534·2	838·6	925·5	365·0

The fall has been most marked in grey dhooties, the cheapest clothing of the ryot, a predominantly Lancashire trade which has felt the full force of the boycott, particularly in Bengal, and has also suffered from substitution of Ahmedabad mill goods and, to a lesser extent, Japanese dhooties. The decline in longcloth and shirtings has probably affected Japan more than Lancashire, as Japanese grey shirtings had already largely ousted the United Kingdom fabric from the Indian market. The fall in grey jaconets, &c., can be accounted for by the fact that they are fairly high priced goods and have therefore suffered from the substitution of cheaper types of cloth produced by Japan and the Indian mills.

White (bleached).	1913-14 (pre-war year).	1928-29	1929-30	1930-31
		(All in million yards)		
Dhooties, saris and scarves...	104·3	43·1	45·5	15·4
Jaconets, madapollams, mulls, etc.	307·9	258·0	219·7	135·4
Longcloth and shirtings ...	115·3	123·0	104·1	71·9
Nainsooks	204·7	76·6	53·1	25·9
Drills and jeans	5·7	5·7	6·6	3·8
Checks, spots and stripes ...	16·1	12·7	12·0	3·7
Twills	8·3	17·7	16·8	7·7
Other sorts	31·0	17·2	15·8	7·8
Total	793·3	554·0	473·6	271·6

The reduction in the imports of bleached goods, although serious, has not been quite so marked as in the case of grey and coloured fabrics. This is mainly due to the fact that the output of bleached goods from Indian mills is very small and consequently there is no possibility of substitution of " swadeshi " cloth. The trade in fine white goods has naturally suffered on account of reduced purchasing power. The trade in the lower grades of white mulls has, however, not been so much affected and still continues on a fair scale for the Punjab. Stocks of many types of bleached goods are almost exhausted and any serious revival of demand would send prices soaring. It is likely that the bleached goods trade will be the first to recover.

Coloured, printed or dyed	1913-14 (pre-war year).	1928-29	1929-30	1930-31
		(All in million yards)		
Dhooties, saris and scarves...	115·2	36·3	33·0	19·1
Cambrics, etc.	113·6	49·7	43·5	20·5
Shirtings	152·6	95·0	105·6	54·7
Prints and chintz	209·7	75·0	61·3	33·7
Drills and jeans	30·0	57·9	86·6	33·3
Checks, sports and stripes ...	19·7	22·4	26·2	12·5
Twills	31·4	47·9	36·6	16·0
Other sorts	159·6	122·7	90·7	55·9
Total	831·8	506·9	483·5	245·7

Imports of coloured goods have suffered from boycott activities as they are usually of unmistakably foreign origin and their wearers have been a target for the activities of picketers. Also, owing to the phenomenally low prices of Japanese artificial silk taffetas, these have been largely substituted for the dyed or printed cotton fabric. Indian mill production of coloured goods declined from 604,000,000 yards to 557,000,000 yards. These are largely bleached goods with woven coloured stripes and have suffered from the competition of Japanese printed styles. The reduction in the imports of woven coloured goods has been very marked and, from a Lancashire point of view, the decline in the print trade during the post-war period is the most serious feature of the coloured goods schedule.

SOURCES OF IMPORTS.

(1) *Grey Goods.*

Countries of consignment.	1929-30		1930-31	
	Yds.	Rs. (lakhs).	Yds.	Rs. (lakhs).
United Kingdom ...	520,515,039	11,76	143,296,706	2,81
China	9,708,202	20	2,490,940	5
Japan	393,696,289	8,91	218,319,100	3,98
United States	916,003	3	534,696	2
Other countries ...	713,168	2	397,982	1
Total	925,548,701	20,92	365,039,424	6,87

For the first time in the history of the trade imports of Japanese piecegoods have exceeded, both in quantity and value, the imports from the United Kingdom. This may be ascribed mainly to the great reduction in the import of Lancashire dhooties owing partly to the depression and partly to the boycott. In 1929/30 no less than 443,000,000 yards of the 520,000,000 yards imported from the United Kingdom consisted of bordered dhooties. Japan shipped in 1929/30 57,500,000 yards. Since the boycott began in April, 1930, practically no forward business of any magnitude in dhooties has been placed, with the result that once the imports of goods ordered before March 31st, 1930, had been effected, the enormous Lancashire trade practically ceased. Japan, meanwhile, although the boycott nominally extended to all imported piecegoods, was able to continue doing business. Japanese grey shirtings and dhooties were being sold at such attractively low prices that the bazaars could not resist them and the goods were imported and cleared without much difficulty. Even so, the yardage imported from Japan has fallen heavily. As I stated last year—with the exception of the valuable trade in grey dhooties and in a normal year about 50,000,000 yards of grey jaconets—the Indian trade in plain grey goods is, at present, lost to Lancashire, primarily owing to the competition of the Indian mills, and secondarily due to Japanese

competition. In 1930-31 the percentage shares of the United Kingdom and Japan in the grey trade were 39·2 and 59·8 respectively.

(2) *Bleached Goods.*

Countries of consignment.	1929-30		1930-31	
	Yds.	Rs. (lakhs).	Yds.	Rs. (lakhs).
United Kingdom ...	435,947,709	12,03	229,959,908	5,23
Netherlands	7,503,655	29	4,258,804	14
Switzerland	8,584,401	35	5,444,305	19
Japan	13,880,453	33	28,105,352	51
Other countries ...	7,667,795	27	3,873,298	13
Total	473,584,013	13,27	271,641,667	6,20

Apart from the inevitable reduction in all types of bleached goods, which has affected goods shipped from Holland and Switzerland quite as much as United Kingdom goods, the feature of the year has been the incursion of Japan into practically all the staple lines of the trade except the very finest white fabrics. Japanese white shirtings, drills and jeans and nainsooks have been on the market for a year or two, but in 1930/31, for the first time, Japanese white mulls of marketable quality, bleach and finish, in spite of a 5% disadvantage in the import tariff, were sold at prices below those at which similar British goods could compete. In 1928/29, Japan's share of the bleached trade was 1%. Last year it was 10·3%. Even taking into account that the times were exceptional in view of the political prejudice against British goods, the fact remains that Japanese competition in white piecegoods is a permanent factor which will have to be faced by Lancashire.

(3) *Coloured, Printed or Dyed Goods.*—The heading is made up as follows:—

Description.	1929-30		1930-31	
	Yds.	Rs. (lakhs).	Yds.	Rs. (lakhs).
Printed goods	199,942,926	5,77	106,491,261	2,61
Dyed goods	150,998,312	4,91	93,120,332	2,69
Woven coloured goods	132,534,139	4,46	46,100,866	1,52
Total imports ...	483,475,377	15,14	245,712,459	6,82

The provenance of the imports was as follows :—

Countries of consignment.	1929-30		1930-31	
	Yds.	Rs. (lakhs).	Yds.	Rs. (lakhs).
United Kingdom ...	278,620,280	9,50	147,626,066	4,47
Germany	1,403,888	9	583,172	4
Netherlands	14,185,817	70	8,544,830	35
Belgium	917,169	8	412,137	3
Switzerland	1,586,373	10	685,529	4
Italy	22,989,915	82	8,749,773	28
Straits Settlements ...	1,489,232	7	711,782	3
Japan	154,269,631	3,45	74,269,591	1,44
Other countries ...	8,013,072	33	4,129,579	14
Total	483,475,377	15,14	245,712,459	6,82

In this category it will be found that the slump has affected all suppliers, whether United Kingdom, Continental or Japanese, in approximately equal measure. All have suffered from the same disabilities, whether of boycott or of reduced purchasing power. The United Kingdom percentage of the whole actually rose from 57·6 to 60, while that of Japan was slightly reduced from 31·9 to 30·2 indicating that the Continent (particularly Italy) suffered most. Japanese competition is keen in printed drills, jeans, shirtings, flannelettes and " prints and chintz "; in dyed drills and jeans, flannelettes, shirtings and twills; and in coloured woven checks, spots and stripes, drills and jeans, twills and shirtings. Even in velvets and velveteens, Japanese imports now approximate those from Lancashire.

(4) *Fents of all Descriptions.*—This trade, which reached its zenith in 1927/28 with an import of Rs.94 lakhs' worth, has shown a progressive decline since and was reduced to less than 20% of that figure in 1930/31.

Countries of consignment.	1929-30		1930-31	
	Yds.	Rs. (lakhs).	Yds.	Rs. (lakhs).
United Kingdom ...	12,456,293	36	2,548,321	6
United States	23,908,034	53	4,792,649	10
Other countries ...	374,094	1	235,386	—
Total	36,738,421	90	7,576,356	16

Whereas United Kingdom shippers have conducted a valuable trade in fents for several decades, they were regarded for many years in the United States as a waste product to be sold for what they would fetch. New York shippers, having discovered the Indian market, have consistently sold their fents in India at prices much below United Kingdom quotations, which were augmented

by an elaborate system of stitching and making-up. The principal market is in Bombay.

SHARES OF THE PRINCIPAL COMPETITORS IN THE TOTAL QUANTITIES OF PIECEGOODS IMPORTED.

Countries of consignment.	1913-14 Per cent.	1927-28 Per cent.	1928-29 Per cent.	1929-30 Per cent.	1930-31 Per cent.
United Kingdom	97·1	78·2	75·2	65·0	58·8
Japan	0·3	16·4	18·4	29·3	36·1
United States ...	0·3	1·4	1·5	1·7	1·0
Netherlands ...	0·8	1·0	1·0	1·1	1·5
Other countries ...	1·5	3·0	3·9	2·9	2·6
Total ...	100·0	100·0	100·0	100·0	100·0

The outstanding feature of the year has been the further advance in the Japanese share of the trade which has resulted, firstly, from the fact that Japanese goods have not been subjected to the same boycott activity as the products of the United Kingdom and, secondly, from their low prices, which have assisted their sale during a year of such intense depression. In times of extreme poverty and reduced purchasing power, the Indian consumer is obliged either to make his clothes last longer and to defer the purchase of new cloth (in this regard, it is reported that torn or worn-out dhooties are now being repaired in the districts of Bengal) or else to substitute cheaper cloths for the Lancashire fabrics, which he may have been in the habit of buying. This process of substitution of the cheaper Indian mill-made and Japanese qualities has been proceeding ever since the end of the war, during which time the price level of United Kingdom goods has been far above the ideas of the purchasing populations in the East. The still further reduction of India's purchasing power in 1930/31, coupled with the political agitation against United Kingdom goods, afforded the Indian and Japanese manufacturers a unique opportunity of improving their position.. That they have taken full advantage of this opportunity to acquire a position from which it will be difficult to dislodge them is amply proved by the statistics already given. The Japanese have scored very heavily in Eastern markets by their production of standard qualities at remarkably low prices, which would seem to be made possible by their closely-knit organisation and by the use of the Toyodo automatic loom. Details, both of the Japanese manufacturing and marketing organisation and of the general position in the Indian market, can be obtained from the reports on the Cotton Industries of Japan and India recently compiled by Mr. Arno S. Pearse, late Secretary of the International Federation of Master Cotton Spinners' and Manufacturers' Association.

Indian Mill Competition.—The subjoined detailed statement gives the quantities (in pounds and their equivalent in yards) and

descriptions of the woven goods produced in Indian mills during the past three years :—

Descriptions.		Twelve months, April to March.		
		1928-29	1929-30	1930-31
Grey and Bleached Piecegoods :				
Chadars	pounds	20,570,954	23,765,477	20,431,764
	yards	56,681,087	66,040,321	53,952,571
Dhooties	pounds	115,262,574	157,233,552	164,280,916
	yards	564,153,870	776,027,510	831,405,029
Drills and jeans ...	pounds	19,087,046	25,022,969	21,037,263
	yards	76,336,349	100,297,055	80,738,834
Cambrics and lawns	pounds	744,455	573,491	4,069,786
	yards	4,601,226	3,589,548	28,856,989
Printers	pounds	4,769,783	4,146,925	3,818,419
	yards	22,471,220	19,454,967	19,106,120
Shirtings and long-cloth	pounds	107,701,083	130,274,038	141,317,010
	yards	474,221,488	585,225,147	642,222,883
T-cloth, domestics and sheetings ...	pounds	19,699,114	23,733,182	32,299,680
	yards	75,487,815	90,665,313	121,900,368
Tent-cloth	pounds	2,946,545	3,190,893	3,399,164
	yards	6,935,315	7,629,360	8,738,057
Khadi, dungri or khaddar	pounds	31,575,028	43,213,288	60,219,412
	yards	93,688,988	124,634,578	175,212,963
Other sorts... ...	pounds	8,568,794	10,604,798	9,451,729
	yards	35,015,194	41,357,002	41,356,426
Total ...	pounds	330,925,376	421,758,613	460,325,143
	yards	1,409,592,552	1,814,920,801	2,003,490,240
Coloured piecegoods	pounds	102,175,898	125,858,918	117,518,225
	yards	483,676,103	604,060,248	557,642,795
Grey and coloured goods, other than piecegoods	pounds	3,330,966	4,536,020	3,178,666
	dozens	786,008	1,164,778	779,365
Hosiery	pounds	1,609,033	1,923,016	1,646,193
	dozens	493,488	576,353	493,176
Miscellaneous ...	pounds	4,403,538	4,799,615	4,225,198
Cotton goods mixed with silk or wool	pounds	3,211,762	3,360,526	3,443,498
Grand total ...	pounds	445,656,573	562,236,708	590,336,923
	yards	1,893,268,655	2,418,981,049	2,561,133,035
	dozens	1,279,496	1,741,131	1,272,541

That the Indian mills have availed themselves of their opportunity is shown by the increase in their total production from 2,419,000,000 yards to 2,561,000,000 yards, which should be compared with the total imports of 890,000,000 yards. The position in the Indian mill industry is clearly summarised by the Director-General of Commercial Intelligence in his Review of Trade when he states " Considering the severe depression in agriculture and

industry and the consequent fall in the purchasing power of the agriculturists in India as well as the disturbed political condition of the country, the cotton industry may be said to have done fairly well in the year under review. There were two main causes for this favourable state of affairs. In the first place, the enhanced customs duties imposed in the Budget of 1929/30 helped the industry considerably in relation to foreign competition. Secondly, the boycott agitation started by the Congress assisted the sale of cotton goods produced by the Indian mills. Added to these two factors, the third favourable circumstance was the absence of any serious labour trouble throughout the year under review. The only drawback at the beginning of the year was the glut of stocks of piecegoods in the market. This led to a somewhat depressed condition in the middle of the year which was aggravated by the frequent " hartals," by the demoralisation of the raw cotton market and by differences between the Congress and some of the mills. From October, however, some of these difficulties were removed and the outlook in the industry became favourable from about that time. On the whole, therefore, the condition of the cotton mill industry in India, considering the peculiar circumstances of the year, may be considered as having been fairly satisfactory. It may be interesting to note that the situation has become even more favourable from March, 1931, when an additional 5% duty was imposed on cotton piecegoods imported from abroad. The outlook for the year 1931/32, therefore, is on the whole, promising, being only modified by the reduced purchasing power of the main body of consumers. The satisfactory condition of the year 1930/31 is evidenced by the fact that the production of both yarn and of piecegoods has been a record."

The Committee of the Bombay Millowners' Association in their report for 1930 included the following :—

" The position in the cloth market has also been unsatisfactory throughout the year. It is doubtful whether, but for the intense Swadeshi movement which prevailed during the period, several Bombay mills could have continued their operations throughout the year as they did. The advantages which the movement afforded were, however, counterbalanced to a great extent by the troubled political situation and the tense feeling which prevailed in Bombay, resulting in frequent hartals, as already mentioned, which created a situation which shook the confidence of merchants and hampered credit. The continuous fall in the price of cotton also brought about a similar decline in the cloth market, merchants buying only for their immediate requirements. Stocks of cloth with mills rose from 137,000 bales at the beginning of the year to over 200,000 bales by the end of August. The situation in the cotton market during September and October improved the offtake, though prices realized by mills did not increase as they were more anxious to decrease stocks than to realize prices commensurate with their higher costs. The price of standard longcloth which was 14½ annas at the beginning of the year declined to 13¼ annas by the end of January and kept steady at this price till the middle of May when there was a small rise of a quarter of an anna. Remaining steady at 13¾ annas for about a month, prices began declining again until the end of the year when standard longcloth was sold at 11½ annas. The demand for cloth that had sprung up stopped again when cotton began declining from the

middle of November, and the only gleam of hope at the end of the year was the fact that up-country centres were depleted of stocks and a demand was certain to rise sooner or later; any improvement in the political outlook is also bound to be reflected in an improvement of trade generally and of the cloth market in particular.

"The movement for boycotting foreign piecegoods generally, and fine English piecegoods in particular, naturally created a demand for finer Swadeshi cloths, and this induced mills to import long-stapled Egyptian cottons, imports of which reached a record. In consequence of the Indian mills turning to finer counts, considerable quantities of American cotton have also been imported by shippers, but owing to their prices being comparatively high, they have not found a ready market, and most of the cotton imported is yet unsold.

"The year opened with a stock of 27,000 bales of yarn and 137,000 bales of cloth and closed with a stock of 24,000 bales of yarn and 145,000 bales of cloth. The average monthly stocks of yarn and cloth during the year were 28,000 bales of yarn and 167,000 bales of cloth against 13,000 bales of yarn and 86,000 bales of cloth in 1929."

In order to take the fullest advantage of the Swadeshi movement, the Bombay Millowners' Association, early in the year, took special measures to assist members to increase the sale of their cloth throughout India. A warranty label, bearing a warranty clause to the effect that the goods on which it is affixed do not contain any foreign yarn and that they are made by an Indian company and by Indian labour is issued to members who give a signed undertaking that they will not use it on cloth in which any type of foreign yarn or artificial silk is used. A permanent showroom for the exhibition of the goods of members of the Association was opened at Victoria Terminus Station, Bombay. Fifty mills, grouping mills under the same agency, have had the use of this showroom for a fortnight. Special arrangements have been made with the Swadeshi Co-operative Stores, Bombay, to stock and sell goods on behalf of the exhibiting mills and also on behalf of such other mills in Bombay as are prepared to send their goods to the stores for retail sale. In addition, several mills have opened their own retail shops in different parts of Bombay. At the close of the year these shops numbered 27.

The Committee of the Millowners' Association have maintained close touch with the selling agents of the mills, who have formed themselves into the Bombay Mills Cloth Selling Agents Association. Frequent meetings have been held with the object of establishing closer contact with large consuming centres and it is hoped that the following steps will shortly be taken :—

(1) The establishment of a showroom in the Mulji Jetha Market, Bombay.

(2) The opening of up-country agencies.

(3) The despatch of travelling salesmen to important consuming centres.

The Millowners' Association have also made arrangements for the employment of a bazaar representative whose duty will be to collect

periodically samples and prices of competitive lines of imported goods.

In order to meet the public demand that there should be some organised control of prices, with a view to preventing the penalisation of the consumer as a result of the Swadeshi movement, it has been arranged that regular fortnightly price lists specifying the ex-mill prices of the chief brands of (a) grey goods and (b) bleached, dyed and fancy goods, should be circulated gratis to all important commercial bodies and associations connected with the trade and sent to the leading English and vernacular papers for publication.

It will be recalled that the Indian Tariff Board advocated the establishment of a combined bleaching, dyeing and printing works in Bombay. A private scheme on these lines was tentatively proposed but it is stated that, owing to the heavy rates for water which were payable to the Bombay Government, this proposal has been placed in abeyance. Opposition to the establishment of a central plant has been met from companies already owning bleaching and dyeing plants on the grounds that their own works were not working to full capacity. The Association summarise the position in their 1930 report by stating that " the present financial position of the industry also precluded the possibility of the industry supporting a proposition of this nature, and any financial resources which mills might have at their command at present must, it was thought, be devoted to reorganisation in the direction of the replacement of old machinery and the introduction of automatic looms on a larger scale than had hitherto been possible. Public support to a project on the lines outlined by the Tariff Board was also unlikely in view of the general conditions of the money market in Bombay, and the continuous depression in the textile industry. In these circumstances, a special sub-committee of the Association had considered the possibility of erecting a central bleaching and dyeing plant by concentrating under one control all the dyeing and bleaching machines in Bombay which would serve as the nucleus of a combined plant. But after a careful study of the data collected in this connection, they were of the opinion that the cost involved in the removal of individual plants and the difficulty of their adjustment to the requirements of an up-to-date bleaching and dyeing factory would far outweigh any advantage which might accrue as a result of this suggestion. While the Committee regretted their inability, for the reasons outlined above, to put forward practical suggestions for the initiation of a scheme for the establishment of a combined factory, they thought that such a scheme was capable of adoption if trade conditions improved or if proposals which were made for an amalgamation of mills were carried to a successful issue."

A scheme for the rationalisation of a large section of the Bombay industry by a suggested merger of certain groups of mills was carefully considered during the year. An expert valuation of the

mills concerned was made by a leading authority, but it is stated that the proposal has fallen through, the reason given in the Press being the heavy Government stamp fees which would be chargeable. The improvement in the general conditions and prospects of the industry together with the difficulty of arranging terms suitable to the principal parties probably contributed to this decision.

Conditions in Ahmedabad.—The President of the Ahmedabad Millowners' Association in reviewing the year, stated that "Our industry passed through alternate periods of depression and fair demand. During the first half of the year conditions were not favourable. However, during subsequent months demand from consuming centres gradually helped the mills and stocks were sold and forward business secured. Stocks had accumulated at the mills from June to August but the last three months gave a fillip to the industry due to the increased force of the Swadeshi movement. Seventy-two mills—that is, practically all mills in Gujerat —have stopped the use of foreign yarn and artificial silk. Such uniform manufacture of Swadeshi cloth without a single thread of foreign yarn will, I hope, give the mills better advantage in the country."

The total production at Ahmedabad advanced from 649,000,000 yards to 691,500,000 yards, of which grey dhooties represented 290,000,000 yards, grey shirtings and longcloth 170,500,000 yards and coloured piecegoods 156,000,000 yards.

Cloth Consumption of India.—The following table, compiled by the Director-General of Commercial Intelligence, gives a rough estimate of the mill-made cloth from all sources which was available for consumption in India during the year 1913/14 and during the past four years:—

	1913-14 (pre-war year). Million yds.	1927-28 Million yds.	1928-29 Million yds.	1929-30 Million yds.	1930-31 Million yds.
Indian Mill production	1,164·3	2,356·6	1,893·3	2,419·0	2,561·1
Imported goods ...	3,197·1	1,973·4	1,936·8	1,919·3	890·0
Total production and imports	4,361·4	4,330·0	3,830·1	4,338·3	3,451·1
Exported, Indian ...	89·2	168·6	149·2	133·4	97·7
,, Foreign ...	62·1	33·8	24·2	22·2	17·4
Total exports ...	151·3	202·4	173·4	155·6	115·1
Balance available ...	4,210·1	4,127·6	3,656·7	4,182·7	3,336·0

It will be remarked that the position of imported and Indian mill-made goods has been almost exactly reversed. Whereas in

1913/14 imports provided three-quarters and the Indian mills one-quarter of the machine-made cloth available for consumption in the country, in 1930/31 the Indian mills produced three-quarters and imports one-quarter of the available balance for consumption.

The following table, from the same source, showing the *per caput* consumption over the same series of years is of interest in this connection :—

Year.	Net imports.		Net available mill production.		Total available for consumption.	
	Actual.	Per caput.	Actual.	Per caput.	Actual.	Per caput.
	Crore yds.	yds.	Crore yds.	yds.	Crore yds.	yds.
1913-14	313	9·90	107	3·39	420	13·29
1927-28	194	5·69	219	6·42	413	12·11
1928-29	191	5·54	174	5·04	365	10·58
1929-30	190	5·46	229	6·58	419	12·04
1930-31	87	2·48	246	7·01	333	9·49

It will be noted that, although the mill production has increased since 1913/14 by 139 crore yards, it has by no means balanced the falling off in imports of 226 crore yards with the result that the cloth available for consumption is 87 crore yards short of 1913/14 and the *per caput* consumption has fallen from 13·29 to 9·49.

CONDITIONS IN THE LARGE IMPORT MARKETS.

Nearly 39% of the total quantity of piecegoods imported in 1930/31 was received in Bengal as compared with nearly 45% in 1929/30. Bombay imported 20% while the shares of Karachi and Madras increased from 15% and 6% to 21% and 9% respectively. The share of Burma rose from 7% to 11% in 1930/31. Although Calcutta still remains the greatest market for cotton piecegoods, both Indian and imported, in India and, in fact, in the world, the Bombay market during the past year received greater attention, as it was the centre of Congress boycott activities and reflected the full force of the attack on United Kingdom goods.

Bombay.—I am indebted to a leading Authority, who has been throughout in close touch with the market, for the following summary of conditions during the period :—

" The political events in the first quarter of 1930 developed at a rate beyond all expectations and after the declaration of Congress policy in March of that year trading became increasingly difficult.

" The demand in the Bombay piecegoods market had reflected for some time the reduced purchasing power of India's consuming population following the shrinkage in her exports due to the drop in prices of her staple products. Apart from this factor, however, the increasing imports of cheap Japanese textiles had caused an accumulation of higher-priced stocks, mainly British, which dealers would have had difficulty in clearing even apart from the

political disturbances. The steady fall in raw cotton prices reduced still further the market values of existing stocks which soon became almost unsaleable. All the conditions, therefore, particularly the general economic depression, were favourable to the success of the Congress boycott which was specially directed against imported textiles.

" The effects of the closing of the principal piecegoods market in Bombay early in the campaign, were immediate and disastrous, and deliveries were soon reduced to one-third of their volume. As a result imports of cotton piecegoods into Bombay showed a steady shrinkage and by September these showed a reduction as compared with the same month of the previous year, of 38 million yards in quantity and 1 crore 7 lakhs of rupees in value. The ' Devali ' demand proved a failure and was in fact the worst on record. Sales were practically impossible except for a small amount of business in local productions. The year closed in a slightly more hopeful vein owing to the possibility of more favourable developments following the Round Table Conference, but the general feeling among dealers was one of pessimism as a result of Congress interference with trade, and the certainty of continued depreciation of stock values.

" Although the effects of the boycott were felt mainly by the United Kingdom, Japanese suppliers also suffered appreciably although the trade losses of that country were proportionately and quantitively less than those of the United Kingdom. In fact in artificial silk cloths and white goods, Japan exported larger quantities than in any previous year, the figures being :—

	1930 Million yds.	1929 Million yds.
Whites	6¾	1¾
Artificial silk cloths	16½	10⅝

At first sight these figures would suggest that Japanese cloths have enjoyed immunity from boycott. This is not so, and is explained by the fact that of the figures given, 98 per cent. was imported into Bombay between the 1st January and the 30th June, doubtless in fulfilment of orders placed in the final quarter of 1929 and the first quarter of 1930, before the boycott became effective. It is of interest, however, to speculate to what extent Japan would have continued increasing her sendings of these other qualities had it not been for Congress action.

The following statement shows the position in regard to other textiles :—

Bordered Goods ...	U.K.	46%	less than 1929	Japan	45%	less than 1929
Greys	,,	50%	,,	,,	52%	,,
Whites	,,	41%	,,	,,	30%	more than 1929
Prints	,,	51%	,,	,,	56%	less than 1929
Dyed Cloths ...	,,	46%	,,	,,	40%	,,
Fancies (Woven, coloured) ...	,,	21%	,,	,,	59%	,,
All piecegoods ...	,,	49·5%	,,	,,	45%	,,
All yarns	,,	40%	,,	,,	42%	,,

Imports from China are not included in these figures. Although the boycott commenced when Japan was approaching record figures in exports to this market, and has seriously reduced her trade, there is no doubt she is a formidable competitor. It is very likely that the future textile trade of this country generally will be largely met by the Far East and Indian productions, with the United Kingdom and the Continent taking third place, unless the question of price is so adjusted as to place the West in successful competition with the East.

" *Continental and other Foreign Competition.*—The Continental and other imports are of course all considerably reduced and of the countries shipping to this market Italy and Belgium have fared the worst. The import figures

have, however, shown a steady decline since the end of 1928 and in order to illustrate the position clearly we give below the percentage loss figures concerned :—

All Piecegoods, 1930.

Italy	...	48%	less than 1929 and	70%	less than 1928
Belgium	...	60%	,,	76%	,,
Germany	...	42%	,,	83%	,,
Holland	...	31%	,,	54%	,,
Switzerland		22%	,,	60%	,,
U.S.A.	...	54%	,,	50%	,,

Apart from particular conditions ruling in India in 1930, the gradual decline of Continental imports is due largely to Far Eastern and local manufactures competing successfully in price. In artificial silk cloths, Continental makers have been very badly hit and it will be a great struggle for them to regain their position of 1928. It is doubtful if they ever will.

" We give below the percentage for the past four years of imports into Bombay of the main countries interested :—

	Piecegoods.				Yarns.			
	1930	1929	1928	1927	1930	1929	1928	1927
	%	%	%	%	%	%	%	%
United Kingdom	48·0	50·0	64·0	59·4	39·4	37·0	42·0	25·6
Japan	40·9	38·7	21·0	25·2	29·0	28·0	20·5	41·3
China	0·5	1·2	0·4	1·1	13·4	16·0	18·3	17·8
United States ...	4·5	5·0	4·8	5·0	1·2	—	—	—
Italy	2·5	2·5	4·3	3·0	13·0	13·4	10·5	10·6
Belgium	0·2	0·2	0·4	0·3	—	—	—	—
Holland	0·5	0·5	0·7	0·5	—	—	—	—
Switzerland ...	2·3	1·5	3·1	3·4	—	—	—	—
Germany	0·2	0·1	0·5	0·7	—	—	—	—
Others	0·4	0·3	0·8	1·4	4·0	5·6	8·7	4·7

" In the beginning of 1931 a slight improvement showed itself and by March the importations of cloth and yarn showed a definite increase although still very considerably less than those of 1930. In dhooties and sarees, however, which constituted such an important share of United Kingdom trade with India in textiles, the imports are still negligible.

" A significant feature in 1931 has been the increasing competition from Japan and in the first three months of the present year, Japan sent more piecegoods to Bombay than the United Kingdom. The actual figures are as follows :—

	Million yards.
From *Japan*	23
,, *United Kingdom*	13

The comparable figures for 1930 were :—

From *Japan*	53
,, *United Kingdom*	63

" At the present time it is difficult to estimate the future course of events, as the principal importers and dealers do not seem disposed to attempt to revive the trade in imported textiles until the position is clearer and there is some assurance that the difficulties of the past year will not recur as a result of a revival of the repressive methods of Congress. It is, however, probable that a considerable number of consumers who have turned to the use of cloth

of indigenous production during the past year will not return to foreign cloth in the future. This attitude may be regulated by the price factor, but events will prove what definite change Congress action has made to the consumption of foreign cloths. It may, however, be taken as fairly certain that imported goods in future will not be in such great demand, except, perhaps, in certain staple lines, as in the past."

Calcutta.—A leading authority in the piecegoods trade writes as follows:—

" 1930.—The latter half of this year was marked by the boycott of foreign piecegoods. Intense picketing was resorted to and the free movement of stocks was severely handicapped. Dealers tried several methods in order to outwit the Congress pickets and went as far as to deliver during the night when the bazaar was more or less quiet. Later, in order to counteract the pickets, the body known as " blue badges " came into being and they were able to afford considerable help to the dealers in giving deliveries.

" Another feature of the year, to our mind the result of a declining market, was the wholesale complaints of short lengths in grey dhooties. Some of these complaints were justified but others were groundless. A considerable number of such complaints were referred to the Bengal Chamber of Commerce for arbitration and on a large proportion of them cancellation was awarded. This afforded relief to some of the dealers and enormous losses on the importers concerned.

" 1931.—Early in the year the Irwin-Gandhi Pact was arrived at and the trade in general had hopes of a revival in the piecegoods business. These hopes were soon dashed to the ground and the market to-day is in as bad a state as it was at the beginning of the year. The recent drop in cotton has not helped matters and this coupled with the inactivity of the up-country consuming centres, due to the very low purchasing power of the ryot, are depressing our market.

" Stocks are very light indeed and though the business done so far this year has been negligible we do not hold much hope of a recovery, in the near future, of the forward demand."

Karachi.—A prominent Karachi importer writes as follows:—

" The year under review has proved to be one of the most difficult, and we think we can say disastrous, in the annals of the piecegoods trade of this side of India, and although it was generally felt at the beginning of the year that the general prospects were far from encouraging there is little doubt that no one anticipated experiencing such a combination of adverse circumstances which have prevailed during the past 12 months. Following a general increase in the import duty on piecegoods, the Karachi and Amritsar dealers in April passed resolutions refusing to place orders for foreign goods either ready or forward for 12 months. It was, however, generally felt that these resolutions would not be strictly enforced, but in a very short space of time it became quite apparent that a strong political movement on the part of the Indian National Congress was working behind the scenes. The rest of the year resulted in continual unrest throughout the whole country, and during the months of June and July the boycott of foreign goods, which, in the main, was directed against British goods, became more and more intensive, culminating in frequent and prolonged hartals which tended almost entirely to dislocate trade. The sales of piecegoods in the various bazaars both at the ports and in the up-country markets were severely restricted owing to picketing with the result that dealers were reluctant to clear their goods, knowing as they did full well, that importers were almost powerless, without resorting to lengthy litigation, to enforce the terms of their contracts. Fresh business with foreign countries was in the main neglected, although it is true that during the months of August and September a certain amount of secret buying took place. Stocks generally were not unduly heavy, but in spite of this

prices continued their downward course. Efforts were made in August and October to re-open the Karachi market, but in point of fact little good resulted as intensive picketing was resorted to, both women and men taking active parts. During the closing months of the year 1930, no improvement in the general position was noticeable and depression continued to overshadow all markets. A slight, but only temporary, revival in trade was noticeable in January-February, 1931, and the offtake to the consuming markets showed some improvement. Confidence in the future course of the raw article and the Manchester market continued to be lacking with the result that dealers adopted a hand-to-mouth policy, and prices gradually moved in favour of buyers, until they have now reached a level which show both dealers and importing houses substantial losses. The causes are, of course, to some extent due to the marked decline in cotton, but are in the main attributable to the heavy imports from the Far East coupled with the agrarian situation up-country which has tended to accentuate an already complicated position. Briefly the feeling can be summed up in a total lack of confidence either in ready prices or in forward rates. It is impossible to state with any degree of accuracy whether the bottom has now been touched, and whether purchases at current values would result in profits, and in view of this the general policy throughout the country is to avoid buying on any scale. The political situation, which has been so preponderant during the past 15 months, appears to have eased slightly, but a more serious factor, namely the economic position throughout the agricultural districts, is preventing any revival in the piecegoods trade in general. The outlook continues uncertain and conditions are very unsettled, and it is doubtful whether there is any likelihood of the foreign piecegoods trade of this country approaching anything near normal in the immediate future."

Madras.—A well-informed correspondent reports as follows :—

" Trade in piecegoods and yarns was conducted under very gloomy conditions and was no exception to the world-wide trade depression, coupled with the further embarrassments caused by the political upheaval throughout India. With regard to the latter, the Madras Presidency was more fortunately placed than the rest of India. Foreign cloth and yarn were certainly boycotted in Madura, Salem and other places but on nothing like the scale experienced in Bombay, Calcutta and other northern markets. The boycott in Madura was not entirely due to Congress as dealers there welcomed the movement in order to get rid of heavy high-priced stocks and when this had been accomplished the boycott automatically ceased and buyers came forward with fresh offers though for a long time the prices indicated by them were unacceptable.

" In the case of Madras City, the Piecegoods Merchants Association of this city inaugurated a three months boycott of foreign cloth to come into force on 5th May, but it was merely nominal, as within three weeks dealers were buying spot goods ' through the back door ' while some dealers were also actually submitting firm offers for forward shipment. After a little more time had elapsed the ' backdoor purchases ' ceased and straightforward buying was resumed.

" Considering the bad state of trade throughout the world and India in particular, the piecegoods and yarn sections of the Madras Presidency have not been unduly depressed. At the commencement of the year dealers and importers held heavy stocks at high prices but these have all practically been cleared off gradually throughout the year with the result that the end of the year saw stocks reduced to normal proportions and all purchases standing on a comparatively cheap basis.

" Stocks at the end of the year were very much lighter than at the beginning so that clearances were bigger than the total arrivals throughout the year. Deliveries throughout March and April were good, one of the reasons being that dealers were making every effort to reduce their holdings on account of

the political unrest throughout the length and breadth of India at that time. Nevertheless they would not have been able to have made such healthy reductions had there not been a good seasonal demand for foreign cloth and yarn throughout the Presidency. The prices realised for the March-April deliveries, however, were unsatisfactory as dealers were losing money though certain well-known standard goods were bringing in fair profits.

" With the inauguration of the boycott mentioned above, deliveries during May were very poor and the same conditions continued throughout June. Dealers, however, were not buying merely because of the political unrest but also because cotton was steadily falling and had been doing so since January. July saw an improvement particularly in the southern part of the Presidency though the northern markets like Bezwada, Masulipatam, Rajahmundry and Secunderabad still continued lifeless, these latter markets being in sympathy with the political influence of Bombay. The ' Onum ' Festival however, which fell in August accounted for very good clearances to the Trivandrum and Alleppey Districts.

" ' Deepavali ' fell on 21st October and clearances in anticipation of that festival broadened out and were conducted on a very free scale throughout August and September and the early part of October. For the first time for many months goods were delivered straight from the ship side into consumption at profitable rates to dealers and stocks of piecegoods became distinctly light though yarns were not in such a good position.

" When American Cotton Futures fell below 6d. in August, dealers began to take more interest in the replacements. The fall, however, continued so steadily that dealers not knowing when the bottom would be touched, still held aloof. The result was that in September and October certain importers were reported to have taken a view of the market and as Spot American Cotton touched 5·54d. on 10th October there is little doubt these purchases were made on a cheap basis and history has subsequently shown that a fair proportion of these purchases have been sold profitably.

" Prints, however, have been exceptionally disappointing throughout the year and even purchases made at comparatively cheap rates are not moving well into consumption.

" After ' Deepavali ' things became normally quiet but the expected revival in demand in November did not materialise owing to excessive floods throughout the Presidency resulting in the complete dislocation of road and rail traffic. December continued equally lifeless until the last working day of the year, December 29th, when very good clearances were effected in anticipation of the ' Pongal ' festivities which fall on 13th and 14th January, 1931.

" It may be said that while dealers lost heavily during the first half of 1930 owing to the continuous fall in prices both of cloth and the raw material, they have, generally speaking, made money throughout the latter half of 1930 even though some of the purchases were made with cotton between 8d. and 9d.

" Several bazaar failures occurred during the early part of the year and dealers were forced to drastically curtail credit to their up-country sub-dealers."

Delhi.—The situation is described by a correspondent as follows :—

" The fiscal year 1930-31 will always be remembered by the mercantile community in India as the worst ever experienced in living memory and Delhi was by no means an exception to the conditions pertaining. The year opened under normal conditions which were rendered worse by the Congress activities. On the 11th April, 1930, at the instigation of the Congress, the piecegoods merchants of Delhi decided not to buy further foreign goods and also not to pay for any goods which had not passed the Customs barrier at the port on or before a certain given date. This naturally paralysed forward business in this commodity. The other step taken by the Congress was to exact pledges from piecegoods merchants not to sell their stocks and, to make the boycott

effective, they picketted the piecegoods shops, both wholesale and retail. Retail shops situated in stray and out of the way parts of the city particularly meant to meet the requirements of the rural population were also not spared. From May to August, 1930, the market played entirely into the hands of the Congress and the dealers could do no business. As the cold weather was approaching, some dealers who had heavy stocks on hand opened shops at the following places, viz. :—

Kishangarh State (Rajputana).
Rutlam State (Central India)
Dhuri (Punjab) Patiala State Territory.
Gwalior State (Central India).

where they were able to clear substantial quantities but on account of the heavy extra overhead charges which were incurred, very little profit, if any, was made.

" Other shops were also opened in out of the way places in the city where sales were effected secretly. The result, however, has been that while people who had been doing business in foreign piecegoods for three generations got out of the trade, they were replaced by Mahomedans. It is noteworthy that Mahomedans in Delhi had only two or three wholesale shops whereas they have now about twenty.

" The khaddar and the Indian-made mill cloth generally finds favour with the masses and there can be no denying the fact that the latter have considerably improved their turnout both as regards price and quality. The demand for imported goods is now confined to a limited section of the Indian community. The middle-class Hindu women also exclusively wear khaddar, even on gala occasions, and there have been many instances where wedding garments have been made of khaddar instead of costly silk goods.

" The imports of piecegoods have been very small indeed during the period under review and it is estimated that the stocks now held by banks and merchants, are not more than a month's consumption in normal times. That India always wants cheap stuff is emphasised by the fact that despite all the cry of boycott, Japanese cotton and artificial silk fabrics have on account of their cheapness, found a ready market. This we consider is a most noteworthy point at the present time when the slogan is to ' Buy khaddar '—it is immaterial to the average worker where his goods are manufactured and it is only price that counts.

" In view of the financial and political situation and the decreased purchasing power of ryots, chances of the trade improving in the near future, are very remote."

Amritsar.—A banking correspondent writes as follows :—

" Imports of piecegoods into Amritsar during the fiscal year 1930-31 were considerably lower than for the preceding year. The intensive campaign for the boycott of foreign piecegoods by the Congress, which resulted in dealers cancelling contracts and in many cases undertaking not to import further goods for a considerable period, was largely responsible for this falling-off. The general trade depression and money stringency also contributed to this result.

" The shortage of stocks and the difficulty dealers had in evading Congress picketers in making deliveries to their buyers, helped to keep up the price of goods during the greater part of the period under review. Towards the end of 1930 there was a slightly better feeling in the market and a fair number of orders were placed for Manchester goods. As these goods commenced to arrive prices sagged, and with the signing of the Delhi Pact prices dropped still further. Stocks are again beginning to accumulate and dealers, who have to sell on credit, are experiencing great difficulty in collecting their outstandings.

Deliveries from godown have been on a restricted scale recently, but from the beginning of September, 1931, it is expected that there will be a better seasonal demand.

" Since the latter part of last year there have been very large imports of Japanese artificial silk into this market, and this article still finds a ready sale at about 5 annas a yard. These goods have largely taken the place of British and Continental fancy goods."

Cawnpore.—An exchange banker in Cawnpore writes :—

" There seems no room to doubt that of late years Cawnpore has been losing its importance as a distributing centre in favour of Delhi and Amritsar. The latitude allowed to the Congress, which has many supporters in Cawnpore, has also helped to kill the trade, which hitherto has been in the hands of Hindus. Should Mahomedans take it up it may still thrive a little but, we consider, on a much smaller scale than in the past.

" During the last year, business in Cawnpore has been on a very restricted scale, and, with depressed prices, and in the absence of sales, dealers have sustained heavy losses. The outlook for foreign piecegoods is for the time being very uncertain, and we do not expect to see much fresh business for a long time to come. The former average annual total of imports in foreign piecegoods to Cawnpore was estimated to be in round figures about Rs.2 crores, of which one crore was imported directly by local importers, and the balance brought in from Calcutta, Bombay, Amritsar and Delhi, but, in the year under review the figures must have been a mere shadow as compared with previous years. Indian made piecegoods turnover is stated to be about Rs.6 to 7 crores average and it is possible that in the near future the figures of Indian piecegoods may increase at the expense of foreign piecegoods. Times are too uncertain for a reliable opinion to be formed, and until agricultural prices improve buying will only be hand to mouth and markets spasmodic.

" The general present condition of all markets is very depressed and uncertain. Until the political situation clears, and agricultural prices stiffen, we cannot visualise anything but a hand-to-mouth policy all round from buyers of commodities."

GENERAL FORECAST (AUGUST, 1931).

The market at the present time is dominated by a complete lack of confidence in the future which imbues not only bazaar operators but also, to a lesser extent, even the larger European importers. The present is usually the quiet season of the year and forward purchases would not normally be made until the end of September or early October in order to secure December/January/February shipment. The picketing movement has undoubtedly subsided in the principal centres, but is still reported to be active in certain of the up-country consuming markets, although it is believed to be, in the main, of a non-violent character. The fear of a revival of the boycott is, however, ever present in the minds of Indian dealers, who are frankly afraid of a fresh outbreak of violent picketing and regard the present quiet period as the result of a " Truce " rather than a settlement of the difficulty. They are also influenced by the lack of any sign of improvement in the general economic situation. Conditions among the agricultural population are desperate and there has so far been no check to the downward trend in the prices of India's primary products. The purchasing power of the people,

therefore, remains at the lowest level which has existed for decades and this is affecting the offtake not only of imported goods but also of mill products. Although stocks are comparatively light at the ports and practically non-existent in the consuming districts, these represent mainly goods which have been held for over a year and, allowing for accumulated charges and the high prices at which they were purchased, stand in at fully 25 to 40 per cent. above present replacement values. Moreover, dealers have still to face the settlement of these commitments and are loath to enter into forward transactions at a time when each downward movement in the raw cotton market depreciates still further the value of their existing stocks. Nervousness also still persists, in spite of reassuring statements by Government, with regard to the possibility of maintaining exchange even at its present level of 1*s.* 5$\frac{3}{4}$*d.* which is just above the lower gold point.

On the other hand, it must be admitted that stocks could be cleared within two months if the offtake really improved—in fact, the market is almost bare of many standard lines, particularly of bleached goods. The monsoon has, so far, been an abundant one and crop conditions are generally favourable. With middling American raw cotton futures on the basis of 3·77*d.* October and 3·87*d.* January and Manchester cloth quotations on an approximate parity with these rates, which would appear to be on a safe price-level for operations, there would seem to be a prospect for a revival when the buying season approaches at the end of September. In view, however, of the widespread lack of confidence in the economic and political future of the country, it is extremely doubtful whether the present year will see more than bare replacements of such goods as are in short supply and general hand-to-mouth purchases in order to keep marks and styles on the market.

Raw Cotton.—The following statement, taken from the *Indian Trade Journal,* compares the estimates of the total outturn of cotton in India for the last two years with the sum of exports and internal consumption. The figures are those supplied by the Indian Central Cotton Committee and refer in the case of mills in British provinces to Indian cotton alone. The estimate of mill consumption in Indian States refers to all cotton, but it has been ascertained from the Indian Central Cotton Committee that the amount of foreign cotton consumed in Indian States is negligible. Import figures have not therefore been taken into consideration for the purposes of the comparison set forth below. A conventional estimate has as usual been made for extra-factory or local consumption. It should be borne in mind that estimates of the " carry over " from one year to another have not been taken into account owing to complete information not being available regarding stocks*.

*Stocks of cotton in Bombay were 894,000 bales on 31st August, 1929, and 770,000 bales on 31st August, 1930.

	Year ending 31st August. 1930	1929
	Thousand bales. (400 lbs.)	Thousand bales (400 lbs.)
Exports to United Kingdom	286	233
„ Continent (Europe excluding United Kingdom)	1,505	1,429
„ China	555	456
„ Japan	1,409	1,722
„ other countries	113	93
Total	3,868	3,933
Home consumption—		
Mills†	2,373	1,992
Extra—factory or local‡	750	750
Total	3,123	2,742
Approximate crop	6,991	6,675
Estimated in forecast	5,125	5,782
Excess (+) or deficit (—) neglecting carry over ...	+1,866	+893

†The figure of mill consumption is that compiled by the Indian Central Cotton Committee, Bombay, mainly on the basis of returns made under the Indian Cotton Cess Act.

‡Conventional estimate.

The next statement shows the stocks of cotton held by Indian mills on 1st August, 1930, and on 1st February, 1931 (in bales regardless of weight) and is published by the Bombay Millowners' Association :—

	Bombay City and Island.		All-India.	
	1-8-30	1-2-31	1-8-30	1-2-31
Cotton mill stocks (in actual bales regardless of weight)—				
(*a*) American (linters and waste not included)	7,125	12,544	14,292	13,041
(*b*) East India	168,409	146,224	808,850	693,783
(*c*) Egyptian	2,321	10,094	4,966	13,816
(*d*) Sundries	8,545	5,459	32,160	10,650
Total	186,400	174,321	860,268	731,290

Figures from the Cotton Census taken at the request of the International Federation of Master Cotton Spinners' and Manufacturers' Associations (Figures are approximations).

The subjoined table gives the imports of raw cotton into India during the past two years :—

Countries of consignment.	1929-30		1930-31	
	Tons.	Rs. (lakhs).	Tons.	Rs. (lakhs).
United Kingdom	345	5	2,470	27
Persia	216	2	75	1
Egypt	511	8	21,343	2,17
Kenya Colony	19,039	2,81	22,693	2,88
Tanganyika Territory ...	571	7	892	10
U.S.A.	1,689	19	9,756	83
Other countries	1,609	20	1,235	13
Total	23,980	3,42	58,464	6,39

Whenever the margin between the price levels of American and Indian cotton is reduced, the Indian mills are always prepared to purchase considerable quantities of the American staple. This was a feature of the year 1927/28 and has been repeated in 1930/31. At the time of writing (August, 1931), Middling American Spot stands at 3·83*d.* and Egyptian F. G. Sakellaridis at 5·95*d.* We may therefore expect a further material increase in the imports of American and Egyptian cotton in the current year. The determination of the Indian mills to spin finer counts of yarn so that they may weave the finer fabrics and thus displace foreign imports of the higher grade cloths has also given a great stimulus to the imports of Egyptian and American cotton. It is probable that this movement will continue and we may reasonably expect to see a permanently increased demand from India for both these staples. The imports of raw cotton from the United Kingdom represent American cotton shipped from Liverpool. The greater portion of the imports are now shipped direct from the Southern States. The bulk of the imported East African cotton has hitherto been re-exported to Japan, the United Kingdom and other European markets. It is noteworthy, however, that in 1930/31 only 530 bales were re-exported as compared with 7,840 bales in 1929/30, again demonstrating the tendency of the local mills to use the finer raw material in order to produce the higher grade yarns and cloths.

Cotton Sewing Thread.—The imports were as follows :—

Countries of origin.	1929-30		1930-31	
	lbs.	Rs. (lakhs).	lbs.	Rs. (lakhs).
United Kingdom	1,999,751	69	1,649,128	52
Other countries	402,327	12	291,911	7
Total imports ...	2,402,078	81	1,941,039	59

Although the imports have declined owing to the economic depression and reduced consuming capacity, it is satisfactory that the

United Kingdom has retained a greater percentage of its trade than its principal foreign competitors—Holland and Austria. Sewing cotton, as such, is not manufactured in India but a certain amount of yarn imported in the hank, is then re-wound on reels in Bombay and sold as sewing cotton. The leading United Kingdom group is strongly organised and conducts the business from its four main depots in India. The sewing cotton trade is a good example of the fact that in trades where India is unable to manufacture the goods herself and where United Kingdom suppliers can meet other foreign competition, the boycott has had the minimum effect.

Artificial Silk.—*Yarns.*—The reduction of the imports of artificial silk yarns has not been so great as might be expected in view of the decision of many of the mills, particularly in Ahmedabad, to discontinue their use on political grounds. The heavy fall in prices is shown by the slight reduction in weight as compared with a material fall in value. The imports were :—

Countries of consignment.	1929-30		1930-31	
	lbs.	Rs. (lakhs).	lbs.	Rs. (lakhs).
United Kingdom	1,426,767	20	1,005,860	12
Germany	362,910	5	269,944	3
Netherlands	430,037	6	762,980	9
France	882,798	12	120,742	1
Switzerland	405,886	5	80,460	1
Italy	3,482,784	46	4,519,807	51
Other countries	361,824	5	359,993	4
Total imports ...	7,353,006	99	7,119,786	81

The average declared value per pound in 1930/31 was Rs.1-2-2 as compared with Rs.1-5-7 in 1929/30. Imports from Italy were valued on the average at Rs.1-1-11 per lb. while the average declared value of the United Kingdom product was Rs.1-3-1. Bombay and Madras are the greatest markets, the former for use in the mills and the latter feeding the handloom industry of Southern India. It is significant that whereas the Bombay takings fell by 270,000 lbs. those of Madras actually increased by 214,000 lbs.

Piecegoods of Cotton and Artificial Silk.—As might be expected on account of the depression coupled with the political agitation, the imports have fallen from 56,599,974 yards, valued at Rs.315 lakhs to 51,494,545 yards, valued at Rs.211½ lakhs. Here again the heavy fall in prices is clearly indicated. The quantities imported into the Bombay and Calcutta markets, which were most affected by the boycott agitation, have fallen considerably, whereas the quantities imported by Madras, Rangoon and Karachi show promising expansion.

Principal countries of consignment.	1929-30		1930-31	
	Yards.	Rs. (lakhs).	Yards.	Rs. (lakhs).
United Kingdom	7,226,794	42	2,406,605	13
Germany	777,285	10	300,066	4
Belgium	557,567	4	216,284	1
Switzerland	6,842,499	43	3,168,737	15
Italy	11,472,585	51	5,574,976	20
Austria	1,682,761	9	620,860	3
Japan	25,038,036	1,40	38,207,243	1,50
Other countries	3,002,447	16	999,774	5
Total	56,599,974	3,15	51,494,545	2,11

While the United Kingdom and its Continental competitors have been equally affected by the slump, the outstanding feature is the further increase in the imports from Japan, which now constitute 71 per cent. of the trade. Japanese standard " taffeta " and other qualities are now being substituted for many items of coloured cotton cloths on account of their phenomenally low price. Low price is the main factor in Japanese competition. Whereas the average value per yard of British artificial silk goods was Rs.0·53 (say 8½ annas or 9½*d.*) that of Japanese cloths was only Rs.0·39 (say 6¼ annas or 7¼*d.*). Japanese prices have been reduced still further during 1931 and the standard quality, after standing at 5 annas per yard for some time, was reduced to 4 annas per yard, a rate at which it is practically impossible to compete. It should be noted that almost all the Japanese fabrics imported are made throughout of artificial silk, whereas the United Kingdom and Continental qualities are admixtures of cotton and artificial silk. Since September, 1930, the Indian Customs Authorities have separately classified the two types and the following tables represent the imports of each during the seven months, September, 1930, to March, 1931.

Piecegoods made entirely of Artificial Silk.

Principal countries of consignment.	Seven months, September 1st, 1930, to March 31st, 1931.	
	Yards.	Rupees.
United Kingdom ...	94,710	88,495
Germany	13,979	17,545
Belgium	925	1,802
Switzerland	5,356	3,654
Italy	101,593	59,715
Austria	5,905	6,286
Japan	22,558,785	80,28,913
Other countries ...	298,460	1,07,962
Total	23,079,713	83,14,372

Piecegoods made of Cotton and Artificial Silk.

Principal countries of consignment.	Seven months, September 1st, 1930, to March 31st, 1931.	
	Yards.	Rupees.
United Kingdom ...	658,999	3,50,605
Germany	79,219	1,87,073
Belgium	63,223	49,494
Switzerland	811,020	3,26,517
Italy	2,245,704	7,06,246
Austria	145,623	62,955
Japan	854,269	2,69,945
Other countries ...	162,446	1,11,440
Total	5,020,503	20,64,275

Flax Manufactures.—The main types imported were as follows :—

Description.	1929-30 Rs. (lakhs).	1930-31 Rs. (lakhs).
Twist and yarn	—*	—†
Canvas	17	11
Piecegoods	3	2
Sewing thread	3	2
Other sorts, including bags and sacks ...	10	7
Total imports	33	22

*4,473 rupees. †31,441 rupees.

Details of the provenance of the imports are not yet available. In 1929/30 the United Kingdom supplied 96% of the whole trade, the balance including Rs.6,000 worth of flax canvas from Italy, Rs.20,000 worth of sewing thread from Austria, Rs.11,000 worth of miscellaneous flax manufactures from Germany and approximately Rs.5,000 each from Italy, China and Japan.

Jute Manufactures.—The imports of the higher-grade jute manufactures which are included under this heading have shown a continuous decline for some years. The figures are as follows :—

Countries of consignment.	1929-30 Rs. (lakhs).	1930-31 Rs. (lakhs).
United Kingdom	7	3
Ceylon	15	12
Other countries	2	3
Total imports	24	18

In 1929/30 the United Kingdom supplied the whole of the Rs.4,000 worth of twist and yarn and also of the Rs.2 lakhs' worth of imported jute canvas. Ceylon, as usual, supplied over Rs.15 lakhs' worth of secondhand gunny bags re-exported from Australia and transhipped at Colombo. Of the Rs.2¾ lakhs of miscellaneous

jute fabrics, the United Kingdom supplied over Rs.2 lakhs, the Straits Settlements, Belgium, France and Italy providing the balance.

Silk Manufactures.—The total imports of raw silk and silk manufactures, as might be expected in a period of greatly reduced purchasing power, show a marked decline. The imports of the various types were as follows :—

Description.	1929-30 Rs. (lakhs).	1930-31 Rs. (lakhs).
Raw silk	1,23	88
Silk yarns, noils and warps	72	52
Goods of silk mixed with other materials ...	35	28
Silk piecegoods	2,22	1,26
Sewing thread	2	1
Total imports	4,54	2,95

China continued to supply practically all the raw silk. Of the yarns, noils and warps, Italy contributed 31%, China 25% and Japan 18%. Silk mixtures were drawn from Japan (66%), the United Kingdom (12%) and Germany (8%). The greatly reduced trade in silk piecegoods was again shared by China (Rs.60¼ lakhs) and Japan (Rs.60 lakhs). The United Kingdom still supplies practically the whole of the imports of sewing silks imported. Bombay accounts for more than half the total imports but Rangoon is also an important market.

Woollen Manufactures.—The various types imported were as follows :—

Description.	1929-30 Rs. (lakhs).	1930-31 Rs. (lakhs).
Worsted yarn for weaving	11	11
Knitting wool	19	14
Blankets and rugs (other than floor rugs)	51	37
Braids	1	*
Carpets and floor rugs	10	5
Hosiery	20	10
Piecegoods	2,33	1,20
Shawls	27	14
Other sorts	5	2
Total imports	3,77	2,13

*42,561 rupees.

In 1929/30 the United Kingdom supplied 50% of the worsted yarn, the balance being drawn from Germany, Poland and France. Half of the total imports enter India through Karachi, the remainder through Bombay and Calcutta. Of the knitting wool, Germany supplied 73% and the United Kingdom 21%. Here again, Karachi is the principal market, followed in order by Bombay, Calcutta, Rangoon and Madras. Italy contributed 88% of the blankets and rugs (other than floor rugs), the United Kingdom 4% and Germany 4%. Germany supplied 66% of the relatively small imports of braids.

Woollen Piecegoods.—This valuable trade which, for many years, averaged over Rs.3 crores in value, has steadily declined since 1927/28 and the economic slump of last year resulted in a further diminution of nearly 50 per cent. The subjoined table gives the origin of the imports :—

Principal countries of consignment.	1929-30		1930-31	
	Yards.	Rs. (lakhs).	Yards.	Rs. (lakhs).
United Kingdom	3,732,331	91	2,040,433	48
Germany	1,151,506	25	490,703	8
Netherlands	245,184	8	121,985	4
Belgium	222,401	5	196,210	4
France	3,952,441	60	2,066,367	24
Italy	2,129,390	30	2,017,031	25
Japan	711,535	5	567,975	3
Other countries	416,087	9	217,696	4
Total imports ...	12,560,875	2,33	7,718,400	1,20

It may be fairly confidently stated that the reduced consuming power of the country is mainly responsible for the heavy fall in imports. All markets were affected with the single exception of Rangoon, where the trade actually increased slightly. The greatest reduction occurred in the case of Bombay and during the year the imports viâ Karachi for the first time equalled those of the older port. Calcutta was affected to a less degree. The heaviest reduction took place in the French goods, probably due partly to overstocking in previous years and partly to a decline in the higher priced qualities. The trade in Italian woollens has been remarkably well maintained, which tends to prove that there has only been a market for the very cheapest productions.

Woollen Shawls.—The heavy decline in the trade in 1929/30 has been followed by a still greater reduction in the year under review. The following are the figures :—

Countries of consignment.	1929-30		1930-31	
	Number.	Rs. (lakhs).	Number.	Rs. (lakhs.)
United Kingdom	73,101	3	14,147	1
Germany	290,247	16	222,294	9
Other countries	294,923	8	155,995	4
Total imports ...	658,271	27	392,436	14

Even before the war Germany controlled this trade. Of late years imports from France have shown a tendency to increase while shipments from Italy fluctuate from year to year. Calcutta is the principal market, followed, in order of importance, by Karachi, Bombay and Rangoon.

Carpets and Floor Rugs.—The year 1927/28, with a total import of over Rs.50 lakhs, mainly Italian goods, represents the peak year. Last year's heavy fall in the trade was followed by a further decline of over 50% in 1930/31.

Principal countries of consignment.	1929-30 Rs. (lakhs).	1930-31 Rs. (lakhs).
United Kingdom	3	2
Italy	4	*
Persia	2	1
Other countries	1	1
Total imports	10	4

*10,785 rupees.

The figures indicate that the trade in cheap Italian printed tapestry rugs has virtually ceased. The reduction in the United Kingdom share is entirely due to the general economic depression.

Machinery and Millwork.—Notwithstanding the severe depression and the heavy curtailment of the railway construction programme due to financial stringency, the total imports of machinery and millwork were only reduced from Rs.18·22 crores to Rs.14·35 crores. The boycott campaign, with minor exceptions as in the case of the Ahmedabad mills, scarcely affected the machinery trade, which is mainly conducted with Government Departments and the engineering industries of the country. It is feared, however, that the returns for 1931/32 will show a greater decline owing to the further curtailment of all Government purchases as a result of the urgent need for national economy, the virtual completion of most of the principal public works projects and the unprecedented depression in India's industries which precludes all extensions and renewals for some time. An exception may be made in the case of the Ahmedabad cotton mills which—owing to political feeling against imported piecegoods together with the effects of the increased tariff on all imported cotton goods—are enjoying a period of prosperity and are laying down new and highly efficient plants for spinning, weaving, bleaching, dyeing and finishing. The following table shows the origin of the imports during the past two years :—

Countries of consignment.	1929-30 Rs. (lakhs).	1930-31 Rs. (lakhs).
United Kingdom	13,68	10,67
Germany	1,74	1,18
Belgium	18	14
Japan	6	5
U.S.A.	1,75	1,65
Other countries	81	66
Total imports	18,22	14,35

The next table shows the relative importance of the three principal suppliers before the war and during the past three years :—

Principal countries of consignment.	1913-14 Per cent.	1928-29 Per cent.	1929-30 Per cent.	1930-31 Per cent.
United Kingdom	90·0	76·5	74·7	74·3
U.S.A.	3·0	11·3	9·5	11·4
Germany	6·0	6·4	9·5	8·2
Other countries	1·0	5·8	6·3	6·1
	100·0	100·0	100·0	100·0

The maintenance by the United Kingdom of its position during a period of such stress provides further proof of the contention which has always been made in these reports that the United Kingdom machinery manufacturer enjoys a very high reputation in India for design, quality and service. His selling and technical organisation is, in most cases, second to none, and, provided that he is prepared to meet the changing and more exacting conditions of the market by adaptability in design, increased technical service on the spot and compliance with certain Indian political requirements such as locally registered companies with Indian representation on the Board, &c., I have little doubt that he will be able to maintain his position.

Although the United Kingdom percentage of the total remained virtually unchanged in 1930/31, there was a fall of Rs.3 crores in United Kingdom machinery owing to reduced imports of certain United Kingdom specialities such as railway locomotives, stationary steam and oil engines, boilers, cotton textile machinery, tea machinery and sewing and knitting machines. The U.S.A., on the other hand, has fairly well maintained her actual trade and improved her relative position by greater shipments of electrical machinery, oil-crushing and refining machinery and special types of cotton textile machinery. Imports from Germany were reduced under almost every heading and, notwithstanding recent German efforts to strengthen their local organisation, the depression has been such that Indian importers of even the cheaper types of industrial plant have not been in a position to operate. Competition from Switzerland in oil engines, pumping sets, &c., &c. is very keen.

The following brief analysis of the principal types of machinery imported will be of interest :—

Cotton Textile Machinery.

	1928-29 Rs. (lakhs).	1929-30 Rs. (lakhs).	1930-31 Rs. (lakhs).
Cotton spinning machinery	1,24	1,24	1,13
„ weaving machinery	67	67	53
„ bleaching and dyeing machinery	4	3	2
„ printing machinery	*	†	‡
Other sorts	20	17	10
Total	2,15	2,11	1,78

*Rs.31,124. †Rs.7,757. ‡Rs.71,133.

The provenance of the above imports was as follows :—

Countries of consignment.	1928-29 Rs. (lakhs).	1929-30 Rs. (lakhs).	1930-31 Rs. (lakhs).
United Kingdom	1,98	1,90	1,57
Germany	6	13	7
U.S.A.	5	2	2
Other countries	6	6	12
Total	2,15	2,11	1,78

German competition is largely confined to specialities such as cotton waste spinning machinery and the cheaper types of dobbies. The United States provides fair quantities of patent winders. " Other countries " include specialities from Holland, Poland and Japan. On the whole, the United Kingdom textile machinists hold their own despite the strong anti-British political movement in Ahmedabad and Bombay. This tends to show that where our manufacturers are able to provide the best types of machinery at competitive rates, they can overcome even such strong political prejudice as has been shown during the recent boycott movement. It is to be hoped that they will secure their fair share of recent mill extensions in Ahmedabad.

Woollen Manufacturing Machinery.—The reduced activity in the woollen mills at Cawnpore and Bombay is reflected in a diminution of the imports of machinery. Details are not yet available, but the figures of total imports were :—

1928-29	1929-30	1930-31
Rs.2 lakhs.	Rs.6 lakhs.	Rs.1 lakh.

Jute Manufacturing Machinery.—The acute depression which prevails in the Indian jute trade is shown in the statistics of the imports of jute mill plant.

1928-29	1929-30	1930-31
Rs.130 lakhs.	Rs.144 lakhs.	Rs.81 lakhs.

The trade is almost entirely in the hands of United Kingdom exporters, the only appreciable values of foreign plant imported in 1929/30 being Rs.83,615 worth from Germany and Rs.60,108 worth from the United States.

Electrical Machinery.—The subjoined table gives the main types of electrical plant imported during the last two years:—

	1929-30 Rs. (lakhs).	1930-31 Rs. (lakhs).
Control and switchgear	38	46
Generators, alternators and dynamos ...	44	42
Motors	44	44
Transformers	19	16
Turbo-generating sets	8	3
Other sorts	88	88
Total	2,41	2,39

The total trade was well maintained in spite of the depression. Although the important railway electrification schemes on the Bombay side are now completed, large contracts on account of hydro-electric projects in the Punjab, Madras and elsewhere have been placed during the year. Once these deliveries are made, however, there is likely to be a lull as neither the Central Government nor the Provincial Governments are prepared to embark on large capital undertakings until the financial situation clears. There is also a slowing down of the smaller power schemes for municipalities on account of financial stringency. The depression in Indian industries is also having its effect. On the whole, therefore, it would not be surprising to see a material reduction in the imports during 1931/32.

The provenance of the imports was as follows:—

Countries of consignment.	1928-29 Rs. (lakhs).	1929-30 Rs. (lakhs).	1930-31 Rs. (lakhs).
United Kingdom	1,85	1,83	1,82
Germany	13	16	17
U.S.A.	26	20	29
Other countries	13	21	11
Total	2,37	2,40	2,39

United Kingdom manufacturers, largely on account of their admirable local sales, technical and service organisation, are meeting competition successfully, but both American and German competition is likely to become more acute in the future. The recent acquisition by United States capital of a large share in some of the principal electric supply companies in Western India may accentuate this. Prices for Indian business are still very closely cut and contracts for large power plants are frequently accepted at rates which show little if any profit.

Boilers.—The following were the imports :—

Countries of consignment.	1928-29 Rs. (lakhs).	1929-30 Rs. (lakhs).	1930-31 Rs. (lakhs).
United Kingdom	1,07	1,04	85
Germany	4	2	10
Other countries	4	3	2
Total	1,15	1,09	97

United Kingdom makers of watertube boilers are strongly represented by efficient branch organisations. Shippers of Lancashire and Cornish boilers are also well represented both in Calcutta and Bombay. The temporary lull in the development of large power projects coupled with stagnation in most Indian industries will probably tend to reduce the volume of the trade for the next year or so.

Prime Movers (other than Electrical).—The total imports were classified thus :—

	1929-30 Rs. (lakhs).	1930-31 Rs. (lakhs).
Locomotives—		
Oil engines	2	2
,, (parts of)	1	—
Steam engines	16	7
,, (parts of)	8	6
Railway locomotive engines and tenders and parts	1,97	1,30
Others	2	1
Other than locomotives—		
Gas engines	3	2
,, (parts of)	1	1
Oil engines	1,04	68
,, (parts of)	22	18
Steam engines	19	10
,, (parts of)	34	14
Others	3	15
Total imports	4,12	2,74

The effects of the industrial depression are reflected under practically every item and for the first time for many years a reduced trade in oil engines is to be recorded. Details of the provenance of the imports for 1930/31 are not yet available, but it is estimated that United Kingdom makers supply over 80% of the trade. Increasing competition is being experienced from the United States and Germany in oil engines. The number of gas engines imported amounted to 186 in 1929/30, of which 135 were small gas engines from the United States imported into Burma.

Agricultural Machinery.—This trade which, last year, showed promising expansion, has received a setback as the following figures show :—

	1928-29 Rs.	1929-30 Rs.	1930-31 Rs.
Agricultural tractors and parts	7,57,371	8,35,506	5,19,724
Ploughs and parts	2,02,682	2,02,401	1,23,013
Others	4,68,046	4,60,811	2,03,563
Total imports	14,28,099	14,98,718	8,46,300

Details of origin are not yet available, but in 1929/30 the United States supplied 74% of the tractors, the United Kingdom contributing 18%. Of the ploughs and parts, the United States supplied 63% and the United Kingdom 35%. Of miscellaneous types of agricultural machinery, however, the United Kingdom sent 55%, the United States 17% and Germany 24%. Mention should again be made of the efforts which are being pursued by the Burmah-Shell Oil Storage and Distributing Co. of India, Ltd., to encourage the use of tractors and oil engines for agricultural purposes. It is feared, however, that the need for retrenchment both by the Government of India and by the Provinces will retard the activities of Government agricultural departments in stocking and distributing improved implements. As I have frequently stated, a total import of £63,000 of agricultural machinery in the case of a predominantly agricultural country such as India is pitifully inadequate.

Mining Machinery.—This is one of the few engineering import trades which shows an expansion in the year under review.

Countries of consignment.	1929-30 Rs. (lakhs).	1930-31 Rs. (lakhs).
United Kingdom	22	42
Germany	1	—
Belgium	2	1
U.S.A.	36	30
Other countries	—	1
Total	61	74

The United Kingdom normally supplies the bulk of the colliery plant but United States competition is very keen in the oilfields and in the non-ferrous mining industry in Burma and elsewhere.

Metal Working Machinery (including Machine Tools).—This classification mainly comprises machine tools of all types :—

Countries of consignment.	1928-29 Rs. (lakhs).	1929-30 Rs. (lakhs).	1930-31 Rs. (lakhs).
United Kingdom	23	24	22
Germany	2	3	2
U.S.A.	6	6	3
Other countries	2	2	3
Total imports	33	35	30

Thanks to efficient branch organisations, the leading United Kingdom groups of machine tool makers continue to hold their own. The partial completion and slowing down of the Indian railway programme of workshop rehabilitation will probably curtail the demand for heavy workshop tools during the next year or two while the industrial depression is seriously affecting the trade with the mills and works.

Oil Crushing and Refining Machinery.—Here again, the depression has, so far, had little effect, as shown by the following table :—

Country of origin.	1928-29 Rs. (lakhs).	1929-30 Rs. (lakhs).	1930-31 Rs. (lakhs).
United Kingdom	24	29	24
Germany	11	10	6
U.S.A.	3	2	9
Other countries	2	1	1
Total	40	42	40

The principal port of entry is Calcutta. Bombay, Rangoon and Karachi also provide a market.

Paper Mill Machinery.—Since the erection of the mills of the Punjab Pulp and Paper Mills, Ltd. in 1927/28, there have been no developments on a large scale in the Indian paper industry. Imports have been as follows :—

1928-29	1929-30	1930-31
Rupees.	Rupees.	Rupees.
34,60,279	7,08,342	7,32,040

In 1929/30, the last year for which detailed figures are available, the United Kingdom supplied 94% of the trade.

Refrigerating Machinery.—The expansion of recent years was more than maintained in 1930-31, imports being :—

1928-29	1929-30	1930-31
Rupees.	Rupees.	Rupees.
22,99,753	20,24,229	22,24,267

Calcutta and Bombay are now provided with modern cold-storage accommodation, but the schemes for the provision of widespread cold-storage facilities in mofussil centres have not materialised. The almost universal use of the domestic refrigerator has opened up a large trade in United States types, which were first on the market and which have been energetically distributed. In 1929/30, the United States supplied 86% and the United Kingdom 11% of the total imports. United Kingdom makers of domestic apparatus are late in the field and will find their American competitors strongly entrenched.

Rice and Flour Mill Machinery.—The imports have been little affected by the depression :—

Countries of consignment.	1928-29 Rs. (lakhs).	1929-30 Rs. (lakhs).	1930-31 Rs. (lakhs).
United Kingdom	7	12	14
Germany	10	7	4
U.S.A.	2	3	1
Other countries	2	2	2
Total	21	24	21

It is satisfactory to note the increase in the United Kingdom share of the trade. Germany finds a considerable trade in the smaller types of rice mills both in Burma and in Bengal. United Kingdom flour-milling plant is still the standard.

Sawmill and Woodworking Machinery.

Countries of consignment.	1928-29 Rs. (lakhs).	1929-30 Rs. (lakhs).	1930-31 Rs. (lakhs).
United Kingdom	5	6	4
Other countries	2	3	3
Total	7	9	7

The United States has, in the past, competed very keenly for the sawmilling plants in Burma and elsewhere, while United Kingdom manufacturers supply most of the woodworking machines in the railway carriage and wagon shops. Germany supplies occasional machines, but the principal competitor is the United States.

Sewing and Knitting Machines (including Parts).—There has been a material decline in the total imports due mainly to the reduced purchasing power of the country and partially—in the case of United Kingdom machines—to the boycott propaganda. The imports of complete machines were as follows :—

Countries of origin.	1928-29 Rs. (lakhs).	1929-30 Rs. (lakhs).	1930-31 Rs. (lakhs).
United Kingdom	57	55	40
Germany	19	16	12
Other countries	1	1	1
Total	77	72	53

It is noteworthy that, in spite of attempts to boycott United Kingdom machines in Western India, the import statistics have not fallen as sharply as might have been expected and German competitors have suffered almost as much. German machines to the number of 14,823 were imported during the year and in spite of the fact

that the two principal German manufacturers do not employ a service organisation in India, the machines sell on their low price. The value of the efficient and widespread organisation of the Singer Sewing Machine Co. with their depots, schools and hire-purchase arrangements was clearly demonstrated during the past difficult year. The following are the statistics of parts of sewing and knitting machines :—

1928-29	1929-30	1930-31
Rs. (lakhs).	Rs. (lakhs).	Rs. (lakhs).
13	13	5½

Sugar Machinery —Extensions of certain plants were made during the year and the trade advanced by 50%.

Countries of origin.	1928-29 Rs. (lakhs).	1929-30 Rs. (lakhs).	1930-31 Rs. (lakhs).
United Kingdom	16	8	11
Other countries	1	1	3
Total	17	9	14

In 1929/30 " other countries " included small shipments from France, the United States and Germany. The Indian sugar industry is largely centred in the United Provinces and the Punjab. The principal ports of entry for machinery are Calcutta and Karachi. Future prospects for the industry appear to be somewhat brighter at the present moment and it is hoped that this improvement may be reflected in due course in larger purchases of plant.

Tea Machinery.—The depression in the tea industry is clearly shown in a further decline in the imports of machinery :—

1928-29	1929-30	1930-31
Rupees.	Rupees.	Rupees.
39,65,221	28,47,123	16,82,268

There is stated to have been some increase in the manufacture in Calcutta of certain parts of machinery used in the tea factories. The imports are almost exclusively drawn from the United Kingdom.

Typewriters.—The imports were not affected either by the depression or by the political campaign :—

Countries of origin.	1929-30		1930-31	
	No.	Value (Rs.)	No.	Value (Rs.)
United Kingdom	1,206	1,93,017	1,040	1,78,809
United States	13,766	19,04,617	13,689	18,94,260
Other countries	802	95,159	815	1,17,073
Total	15,774	21,92,793	15,544	21,90,142

Until United Kingdom makers themselves organise an efficient distributing, sales and service organisation in India they cannot hope to improve their present position *vis-à-vis* United States competitors, who now, in addition, assemble some of their machines in the country.

Other Sorts of Machinery.—This comprehensive heading includes all types of machinery and plant not specially classified in the Customs returns. The total values were :—

1928-29	1929-30	1930-31
Rupees.	Rupees.	Rupees.
3,80,98,971	3,11,64,197	2,15,59,976

In 1929/30 the United Kingdom contributed 61%, the United States 12%, Germany 10%, and Sweden 7%. Lesser values were obtained from Italy, Denmark and Japan. The rapid expansion of the imports of miscellaneous industrial plant from Germany and Sweden during the past five years has been remarkable.

Iron and Steel.—The following statement, giving the total imports of iron, steel and iron or steel into India during the past three years, clearly shows the force of the economic blizzard which is affecting, in greater or less degree, every business activity in the country :—

Total imports.	1928-29 Tons.	1929-30 Tons.	1930-31 Tons.
Iron	10,195	8,642	8,600
Steel	248,557	235,459	118,245
Iron or steel...	911,175	728,584	495,803
Total	1,169,927	972,685	622,648

The items principally affected have been galvanised sheets and plates, which—mainly on account of the depressed state of the jute growing districts of Eastern Bengal—fell by 110,120 tons; steel bars (a bazaar trade) which were lower by 81,885 tons; beams, channels, pillars, girders and bridgework (18,088 tons); iron or steel sleepers and keys (49,225 tons); rails, chairs and fish-plates (15,479 tons); plain sheets (22,402 tons) and tinned plates (13,914 tons).

The Calcutta Market.

The Committee of the Calcutta Import Trade Association, in their report for 1930, state :—

"*Galvanised Corrugated Sheets.*—During the year this market was in an extremely depressed state and shipments from the United Kingdom to Calcutta were the lowest recorded during the past seven years. They amounted to 63,308 tons as compared with 158,637 tons in 1929, 151,071 tons in 1928, and 195,317 tons in 1927. Prices fell from £13 7*s.* 6*d.* to £11 15*s.* 0*d.* per ton c.i.f. Calcutta, which was the lowest price quoted for thirty years. This considerable drop in price was due not only to the increased competition between manufacturers owing to lack of demand but also to extreme competition between British and Continental manufacturers. Belgian sheets imported into Calcutta amounted to 3,798 tons in 1930 as compared with 5,126 tons in

1929. The lack of demand for sheets was chiefly due to the depressed state of jute and consequent poverty in the jute districts of Eastern Bengal, which are the largest consumers of galvanised corrugated iron. In October, 1930, at the instigation of the Tata Iron and Steel Co., Ltd., the Government of India authorised the Tariff Board to hold an enquiry into the question of affording additional protection to galvanised sheets and as a result of their report the duty of Rs.30 per ton has been increased to Rs.67 per ton on all imported galvanised sheets as a protection to the Company's small annual output of only 25,000 tons.

" *Structural Steel.*—The total imports of steel bars, joists, plates, etc., showed a very considerable decrease being only 159,071 tons as compared with 304,987 tons in 1929. This fall in imports was principally due to the general depression and also to the increased output of the Tata Iron and Steel Co., Ltd. The prices of both British and Continental makers were fairly steady for the first half of the year but weakened gradually during the second half.

" *General.*—The general depression and particularly the slack state of all engineering trades and the suspension of works by Government departments and others was largely responsible for the decline. The consequent competition between manufacturers tended to weaken prices generally."

The Bombay Market.

The Collector of Customs, Bombay, in his report for the year 1930/31, states :—

" The total receipts from the United Kingdom fell further from 92,000 to 47,000 tons in quantity and from Rs.1·85 crores to Rs.95·42 lakhs in value and those from Belgium from 115,000 to 83,000 tons in quantity and from Rs.1·61 crores to Rs.1·16 crores in value. Arrivals from Germany and Luxemburg also declined. Receipts from France, however, increased from 8,500 to 10,200 tons in quantity and from Rs.9·67 lakhs to Rs.9·75 lakhs in value."

" A comparison of imports of protected articles of iron and steel with those of the preceding year discloses a falling-off under galvanised sheets from 72,000 to 45,000 tons representing almost entirely reduced supplies from the United Kingdom. The decreases under ' bars other than cast steel,' ' ungalvanised sheets,' and ' angle and tee steel ' represent smaller receipts from all the principal supplying countries. Under ' beams, channels, pillars, girders and bridgework ' imports fell from 25,000 to 20,000 tons owing to smaller arrivals from Belgium and the United Kingdom, and the fall under ' tinned sheets ' was entirely due to reduced supplies from the United Kingdom. Imports of ' rails, chairs and fishplates,' however, improved owing to increased arrivals from Belgium."

Production and Development of the Tata Iron and Steel Works.—I am indebted to the Tata Iron & Steel Co., Ltd. for the following authoritative statement showing the production and the main items of development at Jamshedpur during the year ended 31st March, 1931 :—

Production of Pig Iron—

Number of furnaces in existence on 31-3-1931	5
	Tons.
Pig iron production	714,329
,, used in works	602,223
Ferro-manganese produced for works' use	6,945
	No. in existence on 31-3-1931
Furnaces and Converters—	
Bessemer converters, acid	3
Open hearth furnaces	10

Production of Ingots—	Tons.
Open-hearth basic	243,875
Duplex basic	380,664
	No. in existence on 31-3-1931
Rolling Mills—	
Cogging mills	2
Rail heavy section mills	2
Plate mills	1
Light section, bar and merchant mills	4
Sheet mills	9
35in. roughing mill	1
Production of Semi-finished Steel—	Tons.
Blooming mills	533,614
Sheet Bar and Billet Mill—	
(1) Billets ... ... (Rolled from blooms produced on the blooming-mills shown above)	117,406
(2) Sheet bars and sleeper bars	71,199
(3) Tin bars and wide flats ...	57,451
Production of Finished Steel—	
Rails 50 lbs. and over (first-class only)	111,715
Rails 30 lbs. and under	1,845
Fishplates (first-class only)	6,285
Sleepers (first-class only)	2,237
Angles, channels and tees	52,732
Beams	31,184
Rounds, squares, flats, octagons and tie bars	73,621
Plates	34,737
Sheets ⅛in. and under, other than galvanised sheets ...	23,040
Galvanised sheets	26,450
Blooms and billets for sale	2,801
	366,647
Plus tie bars, sleeper bars, etc., for sale	67,061
Total	433,708

Blast Furnaces.—" D " Furnace which was under relining and reconstruction for enlargement came into operation from 1st November, 1930.

The Tata Iron and Steel Co., Ltd., made a profit on the year of just under Rs.1 crore, which enabled them to set aside Rs.78 lakhs for depreciation on the plant and over Rs.2 lakhs for colliery depreciation. The dividend was paid on the first preference shares and Rs. 2/8 per share on the second preference capital. In spite of the depression the production of ingots and finished steel constituted records for the Company.

The Indian Iron and Steel Co., Ltd., on the other hand, experienced a most difficult year on account of the slump in world pig-iron prices.

ORIGIN OF THE IMPORTS OF IRON AND STEEL.

The following statement shows the chief sources of supply of iron and steel with the percentage share of each country in the import trade :—

	United Kingdom.		Germany.		Belgium.		France.		United States.		Other countries.		Total.
	Tons. (thousand)	Share. Per cent.	Tons. (thousand)	Share. Per cent.	Tons. (thousand)	Share. Per cent.	Tons. (thousand)	Share. Per cent.	Tons. (thousand)	Share. Per cent.	Tons. (thousand)	Share. Per cent.	Tons. (thousand)
1913-14 ...	609	59·8	200	19·6	173	17·0	2	0·1	22	2·2	12	1·3	1,018
1919-20 ...	269	63·0	1	0·2	13	3·1	—	—	135	31·6	9	2·1	427
1920-21 ...	498	70·0	15	2·1	69	9·7	2	0·3	113	15·9	15	2·0	712
1921-22 ...	280	45·7	60	9·8	160	26·1	9	1·5	84	13·7	20	3·2	613
1922-23 ...	359	48·1	90	12·1	229	30·7	7	1·0	38	5·1	23	3·0	746
1923-24 ...	429	56·7	61	8·0	217	28·7	5	0·5	18	2·4	26	3·7	756
1924-25 ...	439	50·5	88	10·1	273	31·4	16	1·8	17	2·0	36	4·2	869
1925-26 ...	489	55·3	69	7·8	229	25·9	45	5·1	23	2·6	29	3·3	884
1926-27 ...	406	48·1	79	9·3	257	30·4	33	3·9	29	3·4	41	4·9	845
1927-28 ...	685	57·2	79	6·6	316	26·4	48	4·0	16	1·4	53	4·4	1,197
1928-29 ...	650	55·5	70	6·0	333	28·5	54	4·6	18	1·5	45	3·9	1,170
1929-30 ...	486	49·9	58	6·0	312	32·1	35	3·6	16	1·6	66	6·8	973
1930-31 ...	269	43·8	44	7·2	207	33·7	29	4·7	15	2·4	50	8·2	614

The following statement shows the principal headings under which competition was encountered during 1930/31 :—

Description.	From the United Kingdom.	From United States.	From Belgium.	From Germany.	Total imports.
	Tons.	Tons.	Tons.	Tons.	Tons.
Steel bars (other than cast steel)	20,408	*	43,733	2,794	87,419
Beams, channels, girders, pillars and bridge-work	36,863	211	22,485	8,614	86,773
Nuts and bolts ...	2,572	160	3,815	895	8,917
Hoops and strips ...	12,226	*	12,838	3,457	33,349
Nails, rivets and washers	4,618	*	4,082	1,217	13,938
Cast pipes and fittings	2,458	*	172	*	3,001
Galvanised sheets and plates	91,373	1,898	48,150	*	147,432
Tinned plates ...	8,452	8,752	*	*	17,251
Plates not galvanised or tinned	25,940	50	11,361	756	39,331
Wrought tubes, pipes and fittings	17,012	822	3,556	5,835	37,757
Wire nails	195	*	5,624	2,072	12,409
Wire rope	2,659	54	*	*	3,287
Rails, chairs and fish-plates	3,827	*	4,848	*	10,586
Sleepers and keys of steel or iron for rail-ways	2,256	*	13,860	*	16,534

*Not separately distinguished.

Whereas the United Kingdom share has fallen from 49·9 to 43·8% of the total trade, the Belgian proportion has risen from 32·1 to 33·7%. Belgian competition has for years been acute in bars, structural sections, hoops and strips, steel sleepers, wire nails, &c., particularly where the British Standard Specification is not insisted upon. In my last report I drew attention to the severe competition in Belgian galvanised sheets. In spite of all handicaps in 1930/31 the Belgian shipments have only fallen by 2,800 tons whereas United Kingdom consignments are down by 108,922 tons. The Belgian " Minerva " brand has acquired a strong position in all markets, but in Bombay during the past year, owing to political feeling and the desire for cheapness, it has received particular attention. Belgian prices are usually from 5*s.* to 7*s.* 6*d.* per ton below United Kingdom rates and although dealers have, in the past, been prepared to pay a premium of about this amount for British quality, they are not able to do so in times of depression. The question calls for immediate action by the manufacturers concerned.

Luxemburg shipped 14,408 tons of steel bars while Sweden and Norway supplied 1,056 tons and 1,753 tons respectively of nails, rivets and washers. Competition from the United States is mainly encountered in the tin plate trade but was doubtless governed by the agreement of 1928 between the United Kingdom and

United States manufacturers whereby the combined exports of the two countries, with certain exceptions, are shared in the ratio of 70 and 30. The imports of galvanised sheets from the United States rose from 1,615 tons in 1929/30 to 1,898 tons in 1930/31. Reports from Rangoon state that they are popular in the Burma market on account of their bright spangle. The share of France has advanced from 3·6 to 4·7% mainly on account of shipments of bars (5,158 tons), structural steelwork (17,531 tons) and wrought tubes (2,078 tons). The competition of the Tata Iron and Steel Works is becoming increasingly felt in the bazaar trade.

The following brief comments under each heading analyse the position in 1930/31 as compared with the figures for the previous year :—

Bars (other than Cast Steel).—The imports during 1930-31 were only a little over half what they were in the two previous years. In 1929-30 the imports amounted to 169,304 tons valued at Rs.192½ lakhs, whereas in 1930-31 they only amounted to 87,419 tons valued at Rs.91¼ lakhs. The United Kingdom share was reduced by 12,000 tons to 20,408 tons valued at Rs.30½ lakhs. The imports from Belgium declined from 81,517 tons valued at Rs.85¼ lakhs to 43,733 tons valued at Rs.39 lakhs and those from Luxemburg from 38,011 tons valued at Rs.38½ lakhs to 14,408 tons valued at Rs.12 lakhs. There were also reduced shipments amounting to 2,794 tons valued at Rs.2¾ lakhs and 5,158 tons valued at Rs.4½ lakhs from Germany and France respectively.

Beams, Channels, Pillars, Girders and Bridgework.—The total imports again showed a drop from 104,861 tons valued at Rs.132 lakhs to 86,773 tons valued at Rs.105 lakhs. The imports from the United Kingdom which amounted to 36,863 tons valued at Rs.62¼ lakhs, were less by 15,000 tons than in the previous year. Belgian imports were reduced by 8,000 tons to 22,485 tons valued at Rs.19½ lakhs. In the case of Germany, the imports increased from 6,845 tons valued at Rs.7¾ lakhs to 8,614 tons valued at Rs.7 lakhs. Imports from France were also increased from 14,110 tons (Rs.13¼ lakhs) to 17,531 tons (Rs.14 lakhs).

Bolts and Nuts.—The total trade amounted to 8,917 tons valued at Rs.26½ lakhs as compared with 12,551 tons valued at Rs.39¼ lakhs in the previous year. The United Kingdom share was 2,572 tons (Rs.9¾ lakhs) as compared with 3,659 tons (Rs.14¼ lakhs). Imports from Belgium decreased from 5,543 tons (Rs.12½ lakhs) to 3,815 tons (Rs.8 lakhs), those from Germany from 1,924 tons (Rs.6½ lakhs) to 895 tons (Rs.3¼ lakhs), and those from the United States from 303 tons (Rs.1½ lakhs) to 160 tons (Rs.1 lakh). Imports from " other countries " on the other hand increased from 1,122 tons (Rs.4¼ lakhs) to 1,475 tons (Rs.4½ lakhs).

Fencing Materials (including Fencing Wire).—All countries shared in the decrease in imports which amounted to 7,407 tons valued at Rs.18 lakhs as compared with 10,048 tons valued at Rs.26¾ lakhs in the previous year. The shares of the different countries in 1930-31 were United Kingdom 992 tons (Rs.3¼ lakhs), Germany 2,108 tons (Rs.5½ lakhs), and Belgium 2,393 tons (Rs.4½ lakhs).

Hoops and Strips.—The main part of the decrease from 39,218 tons valued at Rs.55 lakhs to 33,349 tons valued at Rs.43½ lakhs was borne by the United Kingdom whose share declined from 16,228 tons valued at Rs.24½ lakhs to 12,226 tons valued at Rs.17 lakhs. Imports from Belgium decreased from 17,248 tons (Rs.22½ lakhs) to 12,838 tons (Rs.16 lakhs), while imports from Germany increased slightly from 3,013 tons valued at Rs.4¼ lakhs to 3,457 tons valued at Rs.4½ lakhs. Imports from " other countries " increased from 2,729 tons (Rs.3¼ lakhs) to 4,828 tons (Rs.5¾ lakhs).

Nails, Rivets and Washers (other than Wire Nails).—The total trade decreased from 16,682 tons valued at Rs.48¼ lakhs to 13,938 tons valued at Rs.38 lakhs. The United Kingdom share fell from 6,398 tons (Rs.17 lakhs) to 4,618 tons (Rs.11½ lakhs). Belgium was the next biggest supplier with 4,082 tons (a drop of nearly 1,000 tons) valued at Rs.9 lakhs. The imports from Sweden were 1,056 tons (Rs.5½ lakhs), Norway 1,753 tons (Rs.5½ lakhs), Germany 1,217 tons (Rs.3 lakhs), and Netherlands 470 tons (Rs.1 lakh).

Cast Pipes and Fittings.—The total trade was only 3,001 tons valued at Rs.10¼ lakhs as compared with 5,760 tons valued at Rs.15¼ lakhs in the previous year. The United Kingdom share fell from 4,297 tons (Rs.12 lakhs) to 2,458 tons (Rs.9 lakhs). Belgian imports were only 172 tons valued at Rs.26,000 and imports from " other countries " 371 tons (Rs.95,000).

Rails, Chairs and Fishplates (including those for Railways.)—The total trade was reduced from 26,065 tons valued at Rs.35½ lakhs to 10,586 tons valued at Rs.15½ lakhs. The bulk of the reduction was borne by the United Kingdom whose share fell from 17,680 tons (Rs.25½ lakhs) to 3,827 tons (Rs.7 lakhs). Imports from Belgium decreased from 5,360 tons (Rs.6 lakhs) to 4,848 tons (Rs.6 lakhs).

Galvanised Sheets and Plates.—Last year's returns showed a decrease from 326,237 tons to 257,552 tons. This year the imports have again been reduced to 147,432 tons valued at Rs.289 lakhs as compared with Rs.555¾ lakhs in 1929-30. The whole of this reduction has been borne by the United Kingdom, whose imports fell from 200,295 tons (Rs.437½ lakhs) to 91,373 tons (Rs.184 lakhs). The imports from Belgium showed a slight decrease from 50,974 tons (Rs.103¼ lakhs) to 48,150 tons (Rs.86½ lakhs). On the other hand, the imports from the United States have increased slightly to 1,898 tons (Rs.6¾ lakhs) and from " other countries " to 6,011 tons (Rs.11¾ lakhs).

Tinned Plates.—The total trade has been reduced from 31,165 tons valued at Rs.99¾ lakhs to 17,251 tons valued at Rs.54¾ lakhs. United Kingdom imports fell from 21,848 tons valued at Rs.68½ lakhs to 8,452 tons valued at Rs.25½ lakhs, while imports from the United States only decreased from 9,315 tons (Rs.31½ lakhs) to 8,752 tons (Rs.29¼ lakhs).

Sheets and Plates (not Galvanised or Tinned).—The total imports were only 39,331 tons valued at Rs.53 lakhs as compared with 61,733 tons valued at Rs.82 lakhs in the previous year. United Kingdom imports amounted to 25,940 tons (Rs.38 lakhs) as compared with 45,187 tons (Rs.62¾ lakhs) in the previous year. The imports from Belgium decreased by 3,000 tons to 11,361 tons valued at Rs.12¼ lakhs.

Sleepers and Keys of Steel or Iron for Railways.—Due to the reduction in the amount spent on railway material and also to the fact that most of the Railway Board's requirements are now placed in India, the imports declined from 65,759 tons valued at Rs.64¼ lakhs to 16,534 tons valued at Rs.19¼ lakhs. The United Kingdom share fell from 10,396 tons (Rs.15 lakhs) to 2,256 tons (Rs.4¾ lakhs), while that of Belgium decreased from 50,802 tons (Rs.45 lakhs) to 13,860 tons (Rs.14 lakhs).

Wrought Tubes, Pipes and Fittings.—Under this heading there has been a slight increase from 34,072 tons valued at Rs.101 lakhs to 37,757 tons valued at Rs.115 lakhs. The share of the United Kingdom was reduced from 17,867 tons (Rs.57¾ lakhs) to 17,012 tons (Rs.52¾ lakhs). The imports from Germany decreased from 6,294 tons (Rs.16½ lakhs) to 5,835 tons (Rs.16½ lakhs) and from France from 2,732 tons (Rs.6½ lakhs) to 2,078 tons (Rs.5½ lakhs). Imports from the United States declined from 1,531 tons valued at Rs.5 lakhs to 822 tons valued at Rs.3½ lakhs. On the other hand the imports from the Netherlands increased from 611 tons (Rs.1½ lakhs) to 1,571 tons (Rs.4¼ lakhs) and from Belgium from 2,744 tons (Rs.6¾ lakhs) to 3,556 tons (Rs.9¾ lakhs). The imports from " other countries " also increased from 2,293 tons (Rs.6¾ lakhs) to 6,883 tons (Rs.22¾ lakhs).

Wire Nails.—There was very little change in the imports which amounted to 12,409 tons valued at Rs.19¾ lakhs. The principal suppliers are Belgium with 5,624 tons (Rs.9 lakhs), Germany 2,072 tons (Rs.3¼ lakhs) and " other countries " 4,518 tons (Rs.7 lakhs). The United Kingdom share is only 195 tons valued at Rs.43,000.

Wire Rope.—There was only a slight decrease from 3,335 tons valued at Rs.19½ lakhs to 3,287 tons valued at Rs.18¼ lakhs. The United Kingdom share was 2,659 tons (Rs.15 lakhs) as compared with 2,898 tons (Rs.17¼ lakhs).

Aluminium.—There has been a check in 1930/31 to the rapidly expanding trade in aluminium in all its forms, which has for many years followed the extension of the Indian hollow-ware manufacturing industry :—

	1929-30		1930-31	
	Cwt.	Rs. (lakhs).	Cwt.	Rs. (lakhs).
Unwrought—				
Ingots, blocks, bars ...	980	1	851	1
Wrought—				
Circles	157,576	1,28	119,038	91
Sheets	3,944	3	2,001	1
Other manufactures	8,525	11	6,445	7
Other imports ...	171,025	1,43	128,335	100

Particulars relating to the origin of the imports in 1930/31 are not yet available, but in 1929/30 58% of the unwrought ingots, &c., were obtained from the United States, 31% from the United Kingdom and 10% from Italy. Of the circles, 39% were drawn from the United States, 28% from the United Kingdom, 9% from France and 8% from Germany. Switzerland and Italy supplied lesser values. Sheets were obtained from the United States (52%), the United Kingdom (22%), Switzerland (14%) and Germany (5%). The imports of " other manufactures " comprising mainly wire and utensils, were received from Germany (32%), the United Kingdom (28%), Belgium (16%), and the United States (6%). The leading United Kingdom and United States groups are strongly represented in the country and keenly compete. During the past year the United States groups have increased their share considerably.

Brass, Bronze and Similar Alloys.—*Mixed or Yellow Metal for Sheathing.*—As might be expected in the case of a metal with such a wide sale in the bazaars, the trade suffered a severe setback during the past year of general depression :—

Countries of consignment.	1929-30		1930-31	
	Cwt.	Rs. (lakhs).	Cwt.	Rs. (lakhs).
United Kingdom	82,491	43	42,174	19
Germany	231,884	1,13	218,554	88
Japan	47,893	26	45,772	21
Other countries	1,118	1	1,988	1
Total imports ...	363,386	1,83	308,488	1,29

Prior to 1926/27, United Kingdom rollers of yellow metal sheets regularly supplied the greater portion of the trade with annual shipments averaging over a crore in value. Germany, however, by producing a sheet at a lower price gradually obtained command of the market and seems likely to retain it.

Other Manufactures (Wrought).—The imports were :—

	1929-30 Rs. (lakhs).	1930-31 Rs. (lakhs).
Rods	6	5
Sheets	4	3
Tubes	1	1
Wire	5	3
Other sorts	22	21

Copper (Wrought).—The imports of wrought copper during the past two years have been made up thus :—

	1929-30 Rs. (lakhs).	1930-31 Rs. (lakhs).
Braziers	1	—
Sheets	63	78
Rods	6	4
Tubes	3	3
Wire (excluding telegraph and telephone wire)	2	2
Other manufactures	7	6

The next table gives the provenance of the imports :—

Countries of consignment.	1929-30		1930-31	
	Cwt.	Rs. (lakhs).	Cwt.	Rs. (lakhs).
United Kingdom	32,234	22	43,605	25
Germany	47,754	31	55,000	28
Belgium	8,054	5	8,951	5
France	29,397	18	40,224	20
United States	1,547	1	31,043	14
Other countries	7,394	5	1,957	1
Total	126,380	82	180,780	93

It is satisfactory to note that the United Kingdom made a slight recovery.

German Silver (including Nickel Silver).—A further decline in the total trade is to be recorded:—

	1928-29	1929-30	1930-31
Quantity (cwt.)	24,184	19,528	16,258
Value (Rs. lakhs)	21	17	13

Railway Plant and Rolling Stock.—As I stated in my last report the issue of combined statistics under this heading has been discontinued since April 1st, 1928. Rails and permanent-way material are now classified under iron and steel, locomotives appear under machinery (prime movers), while carriages and wagons are included under vehicles. As, however, it has always been the practice to bring them together in these reports, I propose to continue doing so in order to facilitate comparison with previous reports.

State-operated Lines.—The figures available from the Monthly Trade Returns for Government Railway Stores are now extremely meagre. No provenance tables are given, while large items such as steel sleepers and permanent-way material, locomotives, &c., are not even separately classified. The only separately classified statistics appearing in the monthly returns are:—

	1929-30 Rs. (lakhs).	1930-31 Rs. (lakhs).
Carriages and parts for railways	24	19
Wagons and parts for railways	11	6

Company-worked Lines.—The imports of railway material entering India as private merchandise on account of the Companies' lines were:—

Rails, chairs and fishplates.

Country of origin.	1929-30		1930-31	
	Tons.	Rs. (lakhs).	Tons.	Rs. (lakhs).
United Kingdom	17,680	26	3,827	7
Belgium	5,360	6	4,848	6
Other countries	3,025	4	1,911	2
Total	26,065	36	10,586	15

Sleepers and keys of steel or iron for railways.

Country of origin.	1929-30		1930-31	
	Tons.	Rs. (lakhs).	Tons.	Rs. (lakhs).
United Kingdom	10,396	15	2,256	5
Belgium	50,802	45	13,860	14
Other countries	4,561	4	418	*
Total	65,759	64	16,534	19

*41,190 rupees.

Railway locomotive engines and tenders and parts.

Country of origin.	1929-30 Rs. (lakhs).	1930-31 Rs. (lakhs).
United Kingdom	1,46	95
Germany	45	28
United States	4	4
Other countries	2	4
Total	1,97	1,31

Railway carriages and parts.

Country of origin.	1929-30 Rs. (lakhs).	1930-31 Rs. (lakhs).
United Kingdom	96	65
Germany	3	1
Belgium	6	5
Other countries	5	5
Total	1,10	76

Railway Wagons and Parts.

Country of origin.	1929-30 Rs. (lakhs).	1930-31 Rs. (lakhs).
United Kingdom	56	43
Germany	3	4
Belgium	13	7
Other countries	1	—
Total	73	54

The above figures clearly show that the London Offices of the Company-operated lines are now following the practice of the Government of India by purchasing in the cheapest market irrespective of country or origin.

Motor Cars.—The imports during the past two years have been as follows :—

	1929-30		1930-31	
	No.	Rs.	No.	Rs.
United Kingdom ...	3,758	96,54,282	2,884	71,03,499
Belgium	27	1,37,336	29	1,20,278
France	364	9,72,834	261	6,80,684
Italy	1,150	26,40,905	912	19,41,630
Canada	2,318	41,70,468	3,250	53,97,702
United States	9,620	1,95,17,626	5,098	1,00,40,723
Other countries	162	4,91,979	161	4,74,266
Total	17,399	3,75,85,430	12,595	2,57,58,782

It is somewhat remarkable that, in a year of such general depression, the fall in the total imports has not been greater than 27% and it is satisfactory to note that the imports from the United Kingdom are only 23% less than in the previous year. This is the first occasion during the past eight years on which it has not been possible to record a steady advance in the number of United Kingdom cars imported. In the circumstances, however, it must be admitted that United Kingdom manufacturers have held their position fairly well. The reduction by nearly 50% in the value of United States cars imported reflects the reduced purchasing power of the masses. The expansion in the case of Canada is attributable, partly to greater activity on the part of the Ford Company, and partly to the fact that the Canadian figures were on an unduly low level last year. Before the establishment in 1928 by General Motors (India) Ltd. of an assembly plant at Bombay, their Chevrolet and Buick cars were imported as " set up " units from the Canadian factories. These vehicles are now imported in a " knocked down " state from the United States Works and are consequently registered as imports from the United States.

There is evidence that increasing attention is being paid to India by one or two United Kingdom motor manufacturers, but, in most cases, the local organisation is still quite inadequate. As I have repeatedly stated, the expansion of motor transport in India will increase at a more rapid rate now that serious attention is at last being given to the extension of roads throughout the country. The market, although temporarily depressed, is one of the most promising ones in the Empire and will amply repay all the attention and care that can be given to it.

The following statement shows the number of motor vehicles registered in British India up to 31st March, 1931 :—

Provinces.	Motor cars, including taxi-cabs.	Motor cycles including scooters and auto-wheels.	Heavy motor vehicles (lorries, buses, etc.)	Total.
	No.	No.	No.	No.
Bengal, including Calcutta ...	33,220	4,849	4,128	42,197
Bombay City	(a)8,336	(a) 499	(a) 873	(a) 9,708
Bombay Presidency (excluding Bombay City and Sind)	(a) 9,027	(a) 772	(a) 70	(a) 9,869
Madras City	12,331	3,013	1,902	17,246
Madras Presidency (excluding Madras City)	7,752	1,873	7,632	17,257
United Provinces	12,015	2,120	5,358	19,493
Punjab	11,666	4,216	7,474	23,356
Burma	(b) 11,459	(b) 1,312	(b) 7,119	(b) 19,890
Bihar and Orissa	9,005	1,242	2,237	12,484
Central Provinces	5,210	1,061	2,524	8,795
Sind	4,024	1,081	157	5,262
Delhi	5,706	1,114	1,272	8,092
North-West Frontier Province	3,066	1,354	2,059	6,479
Ajmer-Merwara	550	152	181	883
Assam	(c) 2,169	(c) 306	(c) 1,679	(c) 4,154
Total	135,536	24,964	44,665	205,165

(a) Represent number of vehicles re-registered during the year ended 31st March, 1931.

(b) Represent number actually running during the year 1930-31.

(c) Relate to the year ended 31st December, 1930.

Motor Cycles.

Countries of consignment.	1929-30		1930-31	
	No.	Rs.	No.	Rs.
United Kingdom	1,842	10,42,831	1,395	7,58,649
United States	35	24,421	53	34,996
Other countries	79	33,860	53	19,911
Total	1,956	11,01,112	1,501	8,13,556

The increased sales of machines from the United States was mainly their higher grades such as are purchased by the Police Authorities in India. United Kingdom makes still maintain their position in the general trade, which has now been fairly stationary for several years and is likely to remain so until the Indian becomes more mechanically minded and there is a considerable extension and improvement in the roads of the country.

Motor Omnibuses, Vans and Lorries.—There has been a setback from 15,306 vehicles in 1929/30 to 8,913 vehicles in the year under review. The vehicles were imported as follows :—

	1929-30 Number.	1930-31 Number.
Vehicles imported with bodies	4,965	2,983
Chassis	10,341	5,930

The next table gives the provenance of the imports :—

Countries of consignment.	1929-30		1930-31	
	No.	Rs. (lakhs).	No.	Rs. (lakhs).
United Kingdom	398	18	258	15
Canada	2,799	46	2,397	36
United States	12,017	1,76	6,197	89
Other countries	92	2	61	1
Total imports	15,306	2,42	8,913	1,41

All suppliers have shared in the reduction but the falling-off in Canadian vehicles has been the least pronounced. The average value of the United Kingdom vehicle has increased owing to a larger proportion of heavy 'bus chassis which have been imported in Calcutta. The general position in India remains largely unchanged and, as I stated last year, apart from the large cities such as Calcutta and Bombay where the tramways and other transport companies operate fleets of heavy vehicles, which are mostly of United Kingdom manufacture, the services throughout the country are almost exclusively equipped with light vehicles of the American type. The reason for this is that the Indian who promotes a transport organisation has usually only a limited amount of capital. He is therefore attracted by cheap United States and Canadian vehicles, which he usually purchases on the hire-purchase system, runs them to death and scraps them after a couple of years or so, thus avoiding the necessity for any repair and maintenance organisation. So long as these conditions prevail and due weight is not given to the longer life of the United Kingdom vehicle, it is difficult to see how United Kingdom types can obtain an entry into this business. Wherever transport companies are operated on modern scientific lines and attention is given to maintenance and repairs, the United Kingdom truck has a better chance, but such companies are still comparatively rare in India.

Cycles (other than Motor Cycles and parts thereof) and Accessories.—The imports under this heading, for the first time since 1924/25, fell below a crore of rupees in value. It was evident in 1929 that the cycle boom was approaching its end. The reduced purchasing power of the community during the past year and, to a

lesser extent, the boycott propaganda, have had their effect and the total imports fell to Rs.72 lakhs.

The figures are :—

	1928-29	1929-30	1930-31
	No.	No.	No.
Cycles imported entire or in sections ...	163,432	142,052	53,472
Values of parts of cycles and accessories (excluding rubber tyres)	Rs. (lakhs). 61	Rs. (lakhs). 60	Rs. (lakhs). 51

The aggregate imports of cycles, parts and accessories were drawn as follows :—

Countries of origin.	1928-29 Rs. (lakhs).	1929-30 Rs. (lakhs).	1930-31 Rs. (lakhs).
United Kingdom	1,07	97	47
Germany	17	13	11
Other countries	5	9	14
Total	1,29	1,19	72

The United Kingdom share fell from 81 to 65% whereas that of Germany rose from 11 to 15%. " Other countries " mainly include Japan and France. Once again, attention should be called to the increased trade in Japanese frames and other parts, which are imported at remarkably low rates and are assembled in the bazaars. I have constantly had to refer to the very prevalent practice, among certain Indian firms who assemble, of attaching the transfer of a well-known United Kingdom make and selling the machine as a United Kingdom one. It is to be hoped that the local representatives of United Kingdom firms will prosecute in every case where they can establish proof.

Provisions.—There has been a noteworthy decline in the total trade due to reduced imports of such semi-luxury articles as biscuits, condensed milk, milk foods, and canned fish and also to a further falling-away in the trade in vegetable products (vegetable ghee, vegetable fats, or solidified vegetable oils as they are popularly known). The diminution in the trade is almost entirely attributable to reduced purchasing power among those classes of the population who constitute the principal consumers. The further decline in the demand for vegetable products has also probably been affected by the agitation, carried on largely by interested parties, against their use.

The subjoined table gives the source of the imports of provisions during the past two years :—

Countries of consignment.	1929-30 Rs. (lakhs).	1930-31 Rs. (lakhs).
United Kingdom	2,35	1,94
Netherlands	1,57	1,27
Straits Settlements (including Labuan) ...	32	31
China (including Hongkong)	16	15
United States	48	40
Australia	9	9
Other countries	66	71
Total	5,63	4,87

After eliminating Rs.109 lakhs' worth of vegetable product (which is non-competitive) from Holland and also the imports consisting of Oriental produce, from the Straits Settlements and China we find that the United Kingdom supplied 58½% of the competitive trade as compared with 60% in 1929/30.

The most important articles imported were the following :—

Principal articles.	1929-30 Rs. (lakhs).	1930-31 Rs. (lakhs).
Bacon and ham	16	14
Biscuits and cakes	55	40
Butter	4	5
Canned or bottled fruits	14	12
Tinned or canned fish	26	18
Vegetable products (vegetable ghee, vegetable fat, etc.)	120	109
Other canned and bottled provisions ...	67	62
Cheese (including canned)	11	10
Cocoa and chocolate...	3	4
Confectionery	26	20
Farinaceous foods in bulk	41	36
Milk foods for infants and invalids ...	37	26
Other farinaceous foods	24	23
Jams and jellies	8	6
Milk, condensed and preserved, including milk cream	88	79
Pickles, chutnies, sauces and condiments...	5	4

Liquors.—*Ale, Beer and Porter.*—The following table gives the imports, both quantities and values, during the past two years :—

Countries of consignment.	1929-30		1930-31	
	Gallons.	Rs. (lakhs).	Gallons.	Rs. (lakhs).
United Kingdom	3,148,384	69	3,016,868	64
Germany	1,048,282	30	898,436	25
Netherlands	336,809	7	369,237	7
Japan	288,218	4	279,387	5
Other countries	41,833	1	46,187	1
Total	4,863,526	111	4,610,115	1,02

During the year 1929/30, 1,718,000 gallons of beer were imported in bulk, mainly for the use of British troops; the United Kingdom supplied 1,691,000 gallons or 98 per cent. Of the beer imported in bottle, amounting to 2,936,000 gallons, the United Kingdom shipped 42%, Germany 36%, the Netherlands 11% and Japan 9%. The imports of stout and porter, amounting to 209,000 gallons, were almost entirely drawn from the United Kingdom.

Spirits.—The following table shows the quantities and values of the principal kinds of spirit imported into India:—

Description.	1929-30		1930-31	
	Gallons.	Rs. (lakhs).	Gallons.	Rs. (lakhs).
Brandy	438,890	47	346,908	39
Gin	121,428	11	126,748	11
Liqueurs	19,165	3	14,069	2
Rum	205,922	3	32,100	1
Whisky	545,893	93	512,609	88
Spirit present in drugs ...	157,548	45	119,395	34
,, perfumed	13,749	11	10,158	8
,, denatured	853,910	10	1,117,463	12
Other sorts	57,404	13	38,542	9

The next table shows the countries of consignment of all spirits:—

Countries of consignment.	1929-30		1930-31	
	Gallons.	Rs. (lakhs).	Gallons.	Rs. (lakhs).
United Kingdom	760,532	1,41	708,220	1,25
Germany	59,916	6	36,415	5
France	426,228	53	339,267	42
Java	1,053,769	12	1,144,357	12
United States	66,130	19	56,956	16
Other countries	47,334	5	32,777	4
Total	2,413,909	2,36	2,317,992	2,04

The imports of spirit have been fairly well maintained, regard being had to the reduced purchasing power of the country. The heavy increase in the import duties in March, 1931, coupled with enforced economy on the part of practically all Europeans in India, will probably result in a heavy fall in 1931/32.

The imports of brandy are almost entirely drawn from France with small quantities from the United Kingdom and Germany. Of a total import in 1929/30 of 545,893 gallons of whisky, the United Kingdom supplied 539,914 gallons. Germany supplied 4,944 gallons mainly in the form of cheap spirit for bazaar consumption. Gin was almost entirely drawn from the United Kingdom, the Netherlands contributing 12,443 gallons of " Hollands " gin. Of the spirit present in drugs the United Kingdom supplied

46%, the United States 40%, with lesser values from France and Germany. Perfumed spirit was drawn from the United Kingdom (41%), France (37%) and Germany (16%). Java supplied practically the whole of the spirit which was denatured at Indian Custom Houses immediately on arrival and before clearance.

Wines.—The imports of wines fell from 289,632 gallons valued at Rs.29 lakhs in 1929/30 to 246,079 gallons valued at Rs.24 lakhs. Of the total imports in the former year, the United Kingdom supplied 35%, France 38%, Italy 8%, and Portugal 4%. Imports from the United Kingdom represent almost entirely British re-exports from French, German, Portuguese and Spanish sources.

Paper and Pasteboard.—The total imports showed a decline from 2,740,400 cwt. valued at Rs.372 lakhs in 1929/30, to 2,293,840 cwt. valued at Rs.287 lakhs in the year under review. The subjoined table shows the percentage shares of the principal countries in the total imports:—

	1913-14 (pre-war year)	1929-30	1930-31
	Per cent.	Per cent.	Per cent.
United Kingdom	56·2	32·8	31·2
Norway	5·1	14·2	15·0
United States	0·8	2·2	4·5
Sweden	3·2	10·3	10·4
Netherlands	2·5	7·0	7·0
Japan	1·0	2·8	3·9
Germany	17·3	12·0	9·7
Austria	8·3	9·1	10·3
Other countries	5·6	9·6	8·0
Total	100·0	100·0	100·0

Packing Paper.—After a satisfactory advance last year, the trade has received a sharp setback.

Countries of consignment.	1929-30		1930-31	
	Cwt.	Rs. (lakhs).	Cwt.	Rs. (lakhs).
United Kingdom	15,309	4	16,972	4
Sweden	106,424	19	105,092	17
Norway	10,195	2	13,039	2
Germany	65,490	10	38,406	5
Netherlands	19,966	3	10,958	2
Austria	29,103	5	18,077	3
Other countries	40,363	7	28,814	5
Total	286,850	50	231,358	38

United Kingdom makers find it difficult to compete with Scandinavian manufacturers, who control large resources of cheap pulp. Imports from Germany largely represent Scandinavian papers re-exported from Hamburg. " Other countries " include Belgium and Czechoslovakia.

Printing Paper.—This important heading includes about equal quantities of news-printing papers and other sorts. Here again a material decline in the trade has to be recorded.

Countries of consignment.	1929-30		1930-31	
	Cwt.	Rs. (lakhs).	Cwt.	Rs. (lakhs).
United Kingdom	97,520	21	76,679	16
Sweden	50,041	8	35,319	5
Norway	258,709	34	241,805	30
Germany	90,849	14	54,214	9
Netherlands	43,934	8	44,386	8
Belgium	13,392	3	10,435	2
Austria	156,115	21	152,025	20
Other countries	94,960	14	68,350	9
Total	805,520	1,23	683,213	99

The above imports were divided according to their subjection to the protective duty as follows :—

	1929-30 Rs. (lakhs).	1930-31 Rs. (lakhs).
Protected	36	28
Not protected	87	71

The large imports of newsprint are mainly derived from Scandinavia and Austria, where large supplies of pulp are available. There is severe competition from Holland in Dutch printings and creamlaids owing to the fact that the cheaper grades of Dutch papers show a superior " bulk " to similar grades of paper manufactured in other countries. Details of this trade, collected in 1930, illustrated by samples, can be obtained on application to the Department of Overseas Trade.

Writing Paper and Envelopes.—The protective duty of one anna per pound on writing paper of all kinds affords a great stimulus to Indian mills, particularly during periods of low prices.

Countries of consignment.	1929-30		1930-31	
	Cwt.	Rs. (lakhs).	Cwt.	Rs. (lakhs).
United Kingdom	79,174	31	54,980	23
Sweden	11,554	3	10,746	2
Norway	65,821	14	35,207	8
Germany	22,462	6	12,986	3
Netherlands	24,979	5	15,862	3
Other countries	40,917	10	27,539	7
Total	244,907	69	157,320	46

A very full report, illustrated by samples, on the Indian market for papers of all kinds was issued by the Department of Overseas Trade in December, 1930. United Kingdom manufacturers interested in the details of the trade should apply for a copy.

Miscellaneous.

	1928-29 Rs. (lakhs).	1929-30 Rs. (lakhs).	1930-31 Rs. (lakhs).
Old newspapers in bags and bales ...	39	46	37
Other kinds of paper	30	34	27
Paper manufactures	13	13	12

Until recent years the United Kingdom practically monopolised the trade in old newspapers, but since 1923, the United States increased her shipments until, in 1926/27 she supplied 30% of the total. Shipments from the United States, however, have shown a steady decline from the peak figures of 1926/27 and in 1929/30 only represented 8% of the total.

Chemicals and Chemical Preparations (*excluding Chemical Manures and Medicines*).—It is most satisfactory to note that the steady advance in the imports of chemicals, which has been a marked feature of recent years, has only been slightly retarded during 1930/31. The total imports were:—

	Rs. (lakhs).
1925-26	2,03
1926-27	2,44
1927-28	2,64
1928-29	2,48
1929-30	2,79
1930-31	2,61

The following table shows the position of the principal countries during the years 1928/29 and 1929/30, the last years for which details of provenance are available:—

Principal countries of consignment.	1928-29 Rs. (lakhs).	1929-30 Rs. (lakhs).
United Kingdom	1,47	1,59
Kenya Colony	6	7
Norway	4	5
Germany	41	44
Netherlands	5	6
Belgium	4	4
Italy	14	21
Japan	4	5
United States	12	12
Total imports (all sources)	2,48	2,79

The next table gives the percentage share of the principal countries of consignment over a period of years:—

	1913-14 (pre-war year)	1928-29	1929-30	1930-31
	Per cent.	Per cent.	Per cent.	Per cent.
United Kingdom	74·7	59·4	57·2	54·0
Germany	12·4	16·7	15·7	18·3
United States	0·3	4·7	4·2	5·2
Italy	5·2	5·8	7·6	7·3
Kenya Colony	—	2·5	2·6	2·3
Norway	0·5	1·7	2·0	1·6
Japan	1·5	1·4	1·9	1·7
Other countries	5·4	7·8	8·8	9·6
Total	100·0	100·0	100·0	100·0

The reduction in the United Kingdom share of 3% is due to diminished imports of sodium carbonate and, to some extent, to the boycott movement in western India. The competition which is being met from the German " I.G." working through the Havero Trading Co. is becoming increasingly acute. The Havero Trading Co. now undertake the distribution of Russian alkalies, trial shipments of which, at very low prices, have been made to the principal consuming centres. Though these imports from Russia have not yet assumed large proportions, they have had a depressing effect on prices and have become a disturbing factor in the market.

Dyeing and Tanning Substances.—*Dyes obtained from coal-tar Alizarines.*—Sources of importation were :—

Countries of consignment.	1929-30		1930-31	
	lbs.	Rs. (lakhs).	lbs.	Rs. (lakhs).
United Kingdom	1,404,684	7	723,741	4
Germany	3,584,571	18	2,369,593	12
Netherlands	212,750	1	1,008	—
Belgium	112	—	—	—
Other countries	125,538	1	146,945	1
Total	5,327,655	27	3,241,287	17

The imports from " other countries " are almost entirely drawn from the United States.

Anilines.

Countries of consignment.	1929-30		1930-31	
	lbs.	Rs. (lakhs).	lbs.	Rs. (lakhs).
United Kingdom	989,614	14	821,045	12
Germany	9,171,076	1,02	9,494,354	1,28
Netherlands	80,620	1	23,116	—
Belgium	54,930	1	58,864	1
France	38,062	1	65,870	2
Switzerland	706,557	19	486,895	16
Italy	736,309	7	685,665	8
United States	1,510,606	15	1,165,993	13
Other countries	31,667	—	27,087	1
Total imports	13,319,441	1,60	12,828,889	1,81

The greater activity in the Bombay and Ahmedabad mills is reflected in increased importations of dyestuffs. Germany has been able to improve her commanding position *vis-à-vis* her principal competitors and has probably been able to take some advantage of the anti-British political propaganda which has been so rife throughout the Bombay Presidency. It is to be hoped that United Kingdom dyestuffs will secure an increasing share of the Indian demand which is bound to expand with the development of the country's textile industries.

Soap.—After attaining a record figure of over Rs.167 lakhs (£1,250,000) in 1929/30, the importation of soap has shown a very material decline to Rs.112 lakhs (£840,000) in the year under review. While this reduction is primarily due to the effect of the general depression, there is no doubt whatever that it was intensified by the boycott campaign. A great fillip was given to soap production in India, as indeed the increased imports of caustic soda suggest. The figures were:—

Description.	1929-30		1930-31	
	Cwt.	Rs. (lakhs).	Cwt.	Rs. (lakhs).
Household and laundry soap	383,656	1,11	287,127	76
Toilet soap	50,862	51	32,354	31
Other sorts	13,421	5	12,841	5
Total imports	447,939	1,67	332,322	1,12
Of which from—				
United Kingdom	393,629	1,46	295,485	98
Other countries	54,310	21	36,837	14
Total	447,939	1,67	332,322	1,12

So far as household and laundry soaps are concerned, United Kingdom makers are *hors concours* thanks to the excellence of their productions and to their efficient selling organisation. In 1929/30 the only competition experienced was from France (30,852 cwt. valued at Rs.6½ lakhs). In toilet soaps, however, the United Kingdom in 1929/30 supplied 75%, the United States 14%, Germany and France each 2%. The United States productions are extensively advertised and are actively pushed by travellers and agents.

Paints and Painters' Materials.—*Paints and Colours.*—There has been a sharp fall in the total imports, almost entirely due to the trade slump. In view of the growing paint industry in India, which is being developed in modern plants by some of the leading United Kingdom makers, there is not likely to be any considerable future expansion in the import trade. The position is as follows :—

Countries of consignment.	1929-30		1930-31	
	Cwt.	Rs. (lakhs).	Cwt.	Rs. (lakhs).
United Kingdom	251,028	75	188,690	54
Germany	97,664	11	125,059	10
Japan	14,137	3	21,986	4
United States	19,420	9	9,538	5
Other countries	110,452	16	107,758	13
Total imports ...	492,701	1,14	453,031	86

German and Japanese competition is keen in the cheaper paints for bazaar use. Japan supplies red lead while the United States supplies directly competitive goods for the trade with the Railways and Industries.

Painters' Materials.—These comprise :—

Description.	1929-30		1930-31	
	Cwt.	Rs. (lakhs).	Cwt.	Rs. (lakhs).
Genuine turpentine	9,482	2	3,649	1
Turpentine-substitute ...	2,971	1	2,108	*
Varnish	37,199	21	34,143	18
Other kinds	Not recorded	9	Not recorded	7
Total	49,652	33	39,900	26

*39,990 rupees.

In 1929/30 the United Kingdom supplied 44%, Sweden 32% and Germany 19% of the genuine turpentine. The small imports of

turpentine-substitute were almost entirely derived from the United Kingdom. The important varnish trade was supplied by the United Kingdom (87%), Germany (5%), and the United States (4%). The competition from the Indian branch works of one or two United Kingdom manufacturers will be increasingly experienced in future. The Indian railway carriage works provide a valuable market for United Kingdom varnishes.

Drugs and Medicines (excluding Chemicals and Narcotics.)—The principal items which are enumerated under this comprehensive heading are:—

Description.	1929-30 Rs. (lakhs).	1930-31 Rs. (lakhs).
Camphor	32	27
Asafoetida	1	2
Codliver oil	1	1
Proprietary and patent medicines	49	43
Quinine salts	29	23
Other sorts	1,14	98
Total imports of all kinds	2,26	1,94

The imports of camphor were largely shared by Germany and Japan. Asafoetida is obtained exclusively from Persia. Codliver oil is mainly obtained from the United Kingdom with lesser quantities from Holland and Germany. The valuable trade in proprietary and patent medicines in 1929/30 was divided between the United Kingdom (50%), Germany (15%), United States (13%), France (10%), Italy, Holland and Norway. Of the quinine salts, the United Kingdom supplied 52%, Germany 29%, Java and United States 4% and Holland 3%. Of the total trade in drugs and medicines in 1929/30 the United Kingdom contributed 42%, Germany 18%, Japan 12%, United States 10% and France 6%.

A boycott of United Kingdom drugs and preparations was experienced in the Calcutta and Bombay markets during the summer and autumn of 1930, which has had some effect on the imports during the year. Conditions at the time of writing (August, 1931), are greatly improved, however, and the principal difficulty now experienced is the general stagnation and lack of confidence. As I have repeatedly stated in these reports, United Kingdom manufacturers suffer most from the lack of a Pure Food and Drugs Act in India, as their competitors are able to compete with drugs which do not come up to the standard of the British Pharmacopœa, and for which there is no standard quality.

Apparel (*excluding Hosiery, Boots and Shoes*).—The following table shows the imports under each main heading:—

Article.	1929-30 Rs. (lakhs).	1930-31 Rs. (lakhs).
Apparel (including drapery, uniforms and accoutrements)	75	50
Gold and silver thread	37	20
Hats, caps, bonnets and hatters' ware ...	30	19
Lametta	7	6
Second-hand clothing	19	12
Waterproofed clothing	3	4
Total imports of all kinds	1,71	1,11

In 1929/30 the United Kingdom supplied 54% of the apparel, the principal competitors being Japan, Germany, Italy, the United States and France. Gold and silver thread were almost entirely drawn from France with increasing competition from Germany and Ceylon. Hats, caps, &c., were supplied by the United Kingdom (33%), Italy (33%), Czechoslovakia (16%) and Japan (8%). Lametta is virtually a monopoly of France and Germany. The considerable trade in second-hand clothing which was formerly held by United Kingdom shippers is steadily being lost to the United States. In 1929/30 United States shipments accounted for 70% and United Kingdom shipments for 28%. Karachi is the principal market, but imports via Bombay are increasing. The small imports of waterproofed clothing are almost entirely drawn from the United Kingdom. The provenance of the total imports was as follows :—

Countries of consignment.	1929-30 Rs. (lakhs).	1930-31 Rs. (lakhs).
United Kingdom	59	34
Germany	17	13
France	36	22
Italy	12	6
Japan	19	18
United States	16	11
Other countries	12	7
Total	1,71	1,11

Hosiery.—*Cotton.*—The statistics record a heavy fall in the total imports :—

	1929-30 Rs. (lakhs).	1930-31 Rs. (lakhs).
Stockings and socks	20	13
Underwear	1,19	74
Other sorts	5	1
Total	1,44	88
Of which from—		
United Kingdom	1	1
Japan	1,23	76
United States	4	2
Other countries	16	9
Total	1,44	88

The bulk of the imports may be considered to be non-competitive as United Kingdom manufacturers do not usually produce such low-quality articles as the bulk of the Japanese socks, singlets, &c., which are bought by the bazaars. Even the German makers find it difficult to compete with Japan although in 1929/30 they contributed Rs.6 lakhs' worth. It is remarkable that United States manufacturers of the higher-grade hosiery for European wear can, by dint of possessing well-known brands, which are extensively advertised, find a market where the United Kingdom was first in the field.

Woollen.—After remaining stationary for some time, the imports shrank by 50 per cent. in 1930/31.

1928-29	1929-30	1930-31
Rupees.	Rupees.	Rupees.
20,05,958	20,04,313	9,72,448

Leicester manufacturers have a stronger position in the woollen hosiery market. In 1929/30 they supplied 82%, Germany 5% and France 6%. The principal ports of entry, in order of importance, are Karachi, Calcutta and Bombay.

Haberdashery and Millinery.—A decline of more than 25% took place in the total trade, which comprises the following headings :—

Articles.	1929-30 Rs. (lakhs).	1930-31 Rs. (lakhs).
Lace and embroidery	24	22
Towels not in the piece	15	9
Other sorts	65	42
Total	1,04	73

The provenance of the imports is as follows :—

Principal countries of consignment.	1929-30 Rs. (lakhs).	1930-31 Rs. (lakhs).
United Kingdom	26	18
Germany	23	16
France	4	3
Switzerland	9	5
Italy	9	9
Japan	20	13
Other countries	13	9
Total	1,04	73

Imports of lace and embroidery, in the past largely a Swiss trade, now come from Germany (29%), Switzerland (19%), the United Kingdom (14%), Italy (16%), with lesser values from Austria and France. Of the towels not in the piece, 91% comprise cheap towels from Japan of a non-competitive grade. The United Kingdom sent 5%, almost all high grade towels. The comprehensive heading of " other sorts " was contributed to by the United Kingdom (33%), Germany (24%), Japan (9%), Italy (8%), Switzerland (5%),

and lesser values from Czechoslovakia, Austria, France and the United States.

Boots and Shoes.—The character of this trade has entirely changed during the past three years owing to the incursion of millions of pairs of Japanese shoes of the cheapest type, mostly either wholly of rubber or of canvas with rubber soles. Even during the past year of depression, when the imports of leather footwear fell sharply, imports of the rubber variety from Japan advanced from 4 to 10 million pairs. The following statement shows the position at a glance :—

	Pre-war average.	1927-28	1928-29	1929-30	1930-31
Pairs (in 1,000) ...	2,323	2,773	3,320	6,761	10,920
Rupees ,, ...	56,73	66,98	68,12	87,81	88,04

If the total quantities be divided into the total values it will be seen that the average price per pair of boots and shoes imported last year was approximately Rs.0·8 (say 1*s.* 2½*d.*). The provenance of the imports was as follows :—

Countries of consignment.	1929-30		1930-31	
	Pairs.	Rs. (lakhs).	Pairs.	Rs. (lakhs).
United Kingdom	634,291	22	244,943	11
Germany	551,727	7	203,671	2
Austria	219,308	3	33,754	—
Czechoslovakia	47,103	2	61,310	2
Japan	4,043,733	29	10,089,253	67
Canada...	548,683	10	70,187	2
United States...	537,509	10	104,080	2
Other countries	179,011	4	113,330	2
Total	6,761,365	87	10,920,528	88

It will be observed that the average price of Japanese imported footwear was only Rs.0·66 (say one shilling) per pair. The total imports were divided, according to kinds of boots and shoes as follows :—

	1929-30		1930-31	
	Pairs.	Rs. (lakhs).	Pairs.	Rs. (lakhs).
Of canvas with rubber soles...	2,781,488	41	5,038,897	41
Of leather	426,397	21	273,640	13
Of other materials	3,553,480	25	5,607,991	34

In 1929/30 United Kingdom manufacturers supplied 78% of the imports of leather boots and shoes, their principal competitors being Czechoslovakia (mainly the Bata Works of Zlin) with 7%, Germany 4% and the United States 2%. The imports of canvas shoes with rubber soles were drawn from Canada (25%), the United States (23%), Japan (21%), Germany (13%) and the United Kingdom (8%). The shoes manufactured from other materials were obtained from Japan (81%) and the United Kingdom (8%), with lesser values from Germany, Austria, United States and Czechoslovakia. So widespread is the sale of Japanese rubber footwear that even the Indian shoemakers of Cawnpore, Agra and Delhi are finding it difficult to compete.

An exhaustive report on the Indian market for footwear was recently compiled by the H.M. Trade Commissioners in India and can be obtained by application to the Department of Overseas Trade.

Leather.—The imports of unmanufactured leather were :—

Description.	1929-30 Rs. (lakhs).	1930-31 Rs. (lakhs).
Hides, tanned or dressed	3	3
Skins, ,, ,, ...	7	5
Unwrought	13	8
Leather cloth (including artificial leather)	6	4

The imports of tanned or dressed hides were mainly obtained from the United Kingdom and Ceylon. Dressed or tanned skins are drawn from the United States and the United Kingdom. Unwrought leather was obtained from the United States (69%) and the United Kingdom (22%). Leather cloth is imported from the United Kingdom (64%) and the United States (26%).

From the point of view of the United Kingdom manufacturer, the more important import is that of leather manufactured goods.

Description.	1929-30 Rs. (lakhs).	1930-31 Rs. (lakhs).
Bags and trunks	1	1
Pickers	8	5
Picking bands and straps	9	7
Roller skins	7	7
Saddlery and harness	1	1
Other sorts	13	8

The United Kingdom in 1929/30 supplied 61% of the small trade in bags and trunks. Although United Kingdom makers still supply the bulk of the leather specialities for the jute and cotton mills, there is some competition from Holland (8%) in pickers and from France (9%), Holland (7%), Belgium and Germany in picking bands. Practically the whole of the roller skins and of the saddlery and harness is imported from the United Kingdom. The United States sent over Rs.3 lakhs' worth (24%) of fancy manufactured leathers included in " other sorts."

The following table shows the countries of consignment of the total imports of leather and leather goods :—

Principal countries of consignment.	1929-30 Rs. (lakhs).	1930-31 Rs. (lakhs).
United Kingdom	42	26
Germany	3	3
Ceylon	1	1
United States	17	14
Other countries	5	5
Total	68	49

Belting for Machinery.

Cotton Belting.

Countries of origin.	1929-30 Rs. (lakhs).	1930-31 Rs. (lakhs).
United Kingdom	12	8
Other countries	1	1
Total	13	9

In 1929/30 Germany shipped Rs.68,888 and the United States Rs.19,491.

Leather Belting.—There has been a sharp falling-off in the trade due to the industrial depression.

Countries of origin.	1929-30 Rs. (lakhs).	1930-31 Rs. (lakhs).
United Kingdom	27	18
United States	9	8
Other countries	4	2
Total	40	28

Attention should again be called to the strides which are being made by two or three American makers of high grade belting who are steadily obtaining an increasing share of the trade largely on account of active support of their agents. During the past year they have also been assisted by political feeling among the mill-owners of western India. Other countries in 1929/30 included Japan (Rs.1·73 lakhs), Holland (Rs.82,631) and Germany (Rs.63,024).

Belting of Other Materials (including Coir).

Countries of origin.	1929-30 Rs. (lakhs).	1930-31 Rs. (lakhs).
United Kingdom	29	20
Germany	3	3
United States	2	1
Other countries	3	2
Total	37	26

" Other countries " includes Japan. The total imports of all kinds of belting fell from Rs.90 lakhs to Rs.64 lakhs. When it is remembered that the pre-war average imports were only Rs.39½ lakhs and that in 1929/30 the corresponding figures were Rs.90 lakhs, a general idea of the industrial development of India since the war can be formed.

Bobbins.—The activity in the Indian cotton mill industry is reflected in an increase in bobbin imports :—

Countries of origin.	1928-29 Rs. (lakhs).	1929-30 Rs. (lakhs).	1930-31 Rs. (lakhs).
United Kingdom	32	35½	34½
Germany	½	½	2
Other countries	3½	4	6½
Total	36	40	43

It will be observed that the United Kingdom lost ground in favour of Germany and other countries. This is probably partly due to political feeling among certain Ahmedabad millowners, who are purchasing increasing quantities of non-British millstores. The rise in the imports from Japan is noteworthy, her shipments in 1929/30 aggregating Rs.3 lakhs in value.

Books and Printed Matter.—The total imports were :—

1928-29	1929-30	1930-31
Rupees.	Rupees.	Rupees.
66,27,876	71,81,903	60,91,405

In 1929/30 the United Kingdom supplied 84%, the United States 8% and Germany 2½%. United Kingdom publishing and scholastic supply firms are well represented and maintain their share of the trade.

Stationery (excluding Paper).—After a period of steady expansion over several years, the total trade receded by over 20% in 1930/31.

Countries of consignment.	1928-29 Rs. (lakhs).	1929-30 Rs. (lakhs).	1930-31 Rs. (lakhs).
United Kingdom	55	55	44
Germany	27	27	19
Japan	7	7	5
United States	5	5	4
Other countries	7	11	9
Total	1,01	1,05	81

United Kingdom manufacturers have been fortunate in maintaining their relative position in a year of reduced trade. Of the pencil

trade in 1929/30 Germany obtained 69%, the United Kingdom 14% and Japan 12%. In high-grade stationery, United Kingdom goods have a strong hold, but even so United States manufacturers, by dint of advertising and canvassing by travellers, have created a market for such specialities as fountain pens, propelling pencils, &c. United Kingdom firms who specialise in office stationery and requisites are meeting with success largely as a result of opening their own branches in the country or of employing regular travellers.

Tobacco.—The depression and political agitation of 1930 have affected the import trade in tobacco more than any other important trade with the single exception of cotton piecegoods. Some decline in imports would have been inevitable in view of the reduced purchasing power of the people, but the situation was aggravated by the boycott movement and the violent activities of picketers in many parts of the country, notably in Bengal and Upper India. The following are the principal forms in which tobacco was imported :—

Description.	1928-29 lbs.	1929-30 lbs.	1930-31 lbs.
Unmanufactured tobacco	6,760,716	4,551,848	1,608,381
Cigars	34,490	39,553	38,324
Cigarettes	4,952,083	5,282,965	3,059,692
Tobacco for pipes and cigarettes	217,694	223,253	189,648
Other sorts	29,589	32,991	39,752
Total imports	11,994,572	10,130,610	4,935,797

Not only were the imports of cigarettes curtailed, but one or two of the largest cigarette factories in India were on short time most of the year and, for a period, were entirely closed, thus causing unemployment to thousands of Indians, both in the factories and also in the tobacco-growing districts. This reduction of local manufacture is reflected in the greatly diminished imports of unmanufactured tobacco.

The provenance of the imports of cigarettes was as follows :—

Countries of consignment.	1928-29 Rs. (lakhs).	1929-30 Rs. (lakhs).	1930-31 Rs. (lakhs).
United Kingdom	1,99·5	2,11·6	1,18·0
Aden and Dependencies	0·2	0·2	0·2
Egypt	0·5	0·6	0·4
United States	0·4	0·4	1·0
Other countries	0·4	0·2	2·8
Total	2,01·0	2,13·0	1,22·4

Since April, 1930, a record of the number of imported cigarettes has been made public. Imports even during the past depressed year reached the prodigious total of 1,268,990,575, representing an average of almost 4 cigarettes per head of population. In order to obtain an idea of the importance of the Indian market one must add to this figure the number produced by the local factories. The fact that the imports of cigarettes between 1913 and 1929 increased fourfold, while local production must have advanced to a very much greater extent, is a sign that there has been a rise in the standard of life of the community.

Rubber Manufactures — Rubber Tyres.—*Pneumatic motor Covers.*—After a period of steady expansion extending over several years, there was a sharp drop in the imports from 487,174 covers in 1929/30 to 370,449 covers in 1930/31. The provenance of the imports was as follows :—

Countries of consignment.	1928-29 Rs. (lakhs).	1929-30 Rs. (lakhs).	1930-31 Rs. (lakhs).
United Kingdom	45	59	37
Germany	7	19	17
France	18	12	7
Italy	17	21	13
Canada	57	53	20
United States	37	59	69
Other countries	2	2	5
Total imports	1,83	2,25	1,68

The most marked feature is the reduction of the imports of tyres from United Kingdom and Canadian factories and the increased importation from the United States. The United Kingdom tyre industry was considerably affected by the boycott movement, particularly in centres such as Bombay, Delhi and the Punjab. One or two of the large United States companies have factories in the United Kingdom and in Canada in addition to their main plants in the United States and are in a position to switch their Indian orders to whichever country is favoured on political or other grounds. During the past year it is evident that the United States works were able to derive material advantage from the political agitation in India.

Pneumatic Motor Cycle Covers.

	1929-30 Rs. (lakhs).	1930-31 Rs. (lakhs).
From United Kingdom	0·78	0·47
,, United States...	0·15	0·05
,, other countries	0·37	0·50
Total	1·30	1·02

The falling-off in the imports of motor cycles during the past few years has been followed by a reduction in the imports of spare tyres.

Pneumatic Cycle Covers.

	1929-30 Rs. (lakhs).	1930-31 Rs. (lakhs).
From United Kingdom	14	10
,, Germany	2	1
,, France	3	4
,, other countries	1	3
Total	20	18

" Other Countries " includes Italy and Holland. The trade in pedal bicycle tyres is still under the influence of the prolonged boom in the imports of cycles which continued for upwards of five years.

Solid Rubber Tyres for Motor Vehicles.

	1929-30 Rs. (lakhs).	1930-31 Rs. (lakhs).
From United Kingdom	2	2
,, Germany	2	1
,, United States...	3	2
,, other countries	1	—
Total	8	5

The steady decline in the total trade is due to the increased number of heavy vehicles now using pneumatic tyres.

Tubes.

	1929-30 Rs. (lakhs).	1930-31 Rs. (lakhs).
Pneumatic motor tubes	35·0	28·0
,, ,, cycle tubes	0·4	0·4
,, cycle tubes	14·0	12·0

Other Manufactures of Rubber (except Apparel and Boots and Shoes).—The total imports aggregated :—

1928-29 Rupees.	1929-30 Rupees.	1930-31 Rupees.
28,38,887	26,71,215	24,33,086

This comprehensive heading includes mechanical rubbers of all kinds, vacuum brake fittings, hose, &c., &c., and has shown a steady decline since the high-water mark of 1926/27. In 1929/30 the United Kingdom obtained 48%, Germany 21%, the United States 18% and Japan 2%. United Kingdom manufacturers, by improving and adapting their branch organisations are holding their own fairly well.

Instruments, Apparatus, Appliances and Parts thereof.—This comprehensive classification is made up as follows ;—

Description.	1929-30 Rs. (lakhs).	1930-31 Rs. (lakhs).
Electrical apparatus	3,61	3,11
Musical instruments	35	26
Optical instruments	8	6
Cinematograph films	28	31
Photographic apparatus	31	31
Scientific instruments	18	17
Surgical instruments	22	17
Wireless apparatus	7	8
Other kinds	28	31
Total imports	5,38	4,78

In 1929/30, the United Kingdom contributed 56% of the total, the United States 14%, Germany 14%, Holland 3% and Italy 2½%. Analysing the various sub-headings we find that :—

Musical Instruments.—The United Kingdom supplies 56%, Germany 21%, the United States 7%, Switzerland 4½% and France 3%. German competition is mainly in band instruments, pianos and talking machines and accessories. The United States supplies talking machines, records and accessories. The imports from Switzerland are almost entirely gramophone accessories.

Optical Instruments.—Germany has always maintained a strong hold on this trade and in 1929/30 contributed 48%, Japan 18%, the United Kingdom 12% and France 12%. United Kingdom imports show a tendency to decline. Arrivals from Japan are expanding.

Cinematograph Films.—In 1929/30, the last year for which details are available, the imports were :—

Countries of consignment.	Length in feet.	Rs. (lakhs).
United Kingdom	6,555,124	4
United States	7,195,524	13
Germany	9,959,611	5
Belgium	5,522,938	2
Total imports	31,747,630	28

United Kingdom films are making slow but steady progress in face of strong United States competition, backed by resident representatives and an elaborate organisation. One United Kingdom group now maintains a resident representative but, generally speaking, United Kingdom makers have largely neglected the market, which has great potentialities and in which United Kingdom films are appreciated. The management of the "New Empire Theatre," Calcutta, deserve great credit for their successful effort to maintain a constant display of the best United Kingdom productions. The popularity of these films proves that if United Kingdom makers will only cultivate the market by adequate representation on the spot, their enterprise will be rewarded. I regard India as one of the most promising outlets in the Empire for United Kingdom films.

Photographic Apparatus.—The trade has shown regular expansion over a series of years. In 1929/30 the United Kingdom supplied 41%, the United States 26%, Germany 18% and France 10%. The Kodak Company and one or two of the principal United Kingdom distributing firms operate branches in the country.

Scientific Instruments.—The United Kingdom contributes 70%, Germany 19% and the United States 6%.

Surgical Instruments.—The United Kingdom supplies 60%, Germany 27% and the United States 7%. German competition increases steadily in spite of the active local branch organisations of United Kingdom makers. A number of Indian surgeons are attracted by low-priced instruments.

Wireless Apparatus.—The total imports rose from Rs.7·3 lakhs in 1929/30 to Rs.7·6 lakhs in the year under review. The wireless beam telegraph service between India and the United Kingdom which is operated by the Indian Radio Telegraph Co., Ltd. is firmly established. There has also been an extension of point to point wireless services, wireless telephonic equipments and wireless beacon and direction finding stations. The Government of India broadcasting service continues to operate from Calcutta and Bombay, but there is a possibility that it may be closed down, at least temporarily, as a measure of economy.

The imports of wireless apparatus during the past two years were :—

Countries of consignment.	1929-30 Rs. (lakhs).	1930-31 Rs. (lakhs).
United Kingdom	4·0	5·0
Germany	0·8	0·4
Netherlands	1·7	1·4
United States	0·6	0·5
Other countries	0·2	0·3
Total imports	7·3	7·6

Electrical Apparatus.—This is the most important heading in the whole group. As might be expected, the result of the economic slump together with the minor effects of a boycott of United Kingdom electrical accessories in Bombay have resulted in a decline in the total trade from Rs.361 to Rs.311 lakhs, the United Kingdom's share being reduced from Rs.215 to Rs.174 lakhs. The following statement gives the description and value of the several classes of electrical apparatus imported during the last two years :—

Description of electrical apparatus.	1929-30 Rs. (lakhs).	1930-31 Rs. (lakhs).
Electric fans and parts thereof	40	26
,, wires and cables	1,15	1,05
Telegraph and telephone instruments ...	5	5
Electric lamps and parts thereof ...	65	59
Batteries	14	13
Carbons, electric	3	2
Accumulators	26	18
Electric lighting accessories and fittings, including switches	17	9
Meters...	9	7
Electro-medical apparatus (including X-ray)	4	3
Switchboards (other than telegraph and telephone)	3	3
Unenumerated	60	61
Total imports of all kinds	3,61	3,11

Analysing these statistics we find that the imports of electric fans and parts thereof fell from Rs.39¾ lakhs to Rs.25¾ lakhs, the United Kingdom share being reduced from Rs.18¾ lakhs to Rs.14½ lakhs, that of Italy from Rs.12 lakhs to Rs.6¾ lakhs and of the United States from Rs.3½ lakhs to Rs.1¼ lakhs. In electric wires and cables (rubber insulated), the imports fell from Rs.42¼ lakhs to Rs.37 lakhs, the United Kingdom's share being reduced from Rs. 34¾ lakhs to Rs.27¾ lakhs. Imports from Germany increased from Rs.3¼ lakhs to Rs.4 lakhs and from the Netherlands from Rs.1 lakh to Rs.1¼ lakhs. There was a small import amounting to Rs.½ lakh from the United States. Although there was a slight increase in the imports of electric wires and cables (insulations other than rubber) from Rs.43¼ lakhs to Rs.43¾ lakhs, the United Kingdom share fell from Rs.40½ lakhs to Rs.38½ lakhs. The import of bare copper wire (electrolytic) other than telegraph and telephone wires decreased from Rs.29 lakhs to Rs.21¾ lakhs. The United Kingdom's share fell from Rs.21½ lakhs to Rs.15 lakhs while imports from Germany increased from Rs.1¼ lakhs to Rs.2½ lakhs. The Netherlands' share amounted to Rs.1¼ lakhs and that of Japan to Rs.1½ lakhs. There was a small importation of Rs.63,000 from the United States. The heading for electric lamps is now divided. Flash lights (including torch lights, pocket lamps, &c.) were imported to the value of Rs.7½ lakhs as against Rs.11½ lakhs in the previous year. The majority of these came from the United States whose share was Rs.6¼ lakhs as against Rs.8¼ lakhs in the previous year. The United Kingdom imports increased from Rs.19,000 to Rs.35,000. Automobile lighting lamps were imported to the value of Rs.1¼ lakhs. Rs.55,000 of these came from the Netherlands and Rs.54,000 from "other countries." There was a small import of Rs.4,000 from the United Kingdom. In standard lighting lamps the imports fell from Rs.26 lakhs to Rs.24½ lakhs. The United Kingdom share increased slightly from Rs.8½ lakhs to Rs.8¾ lakhs. Imports from

the Netherlands declined from Rs.9 lakhs to Rs.8¼ lakhs. Germany supplied Rs.1½ lakhs and Japan Rs.1¼ lakhs. In electric lamps (other sorts) the imports fell from Rs.1½ lakhs to Rs.1 lakh of which only Rs.29,000 came from the United Kingdom. The imports of telegraph and telephone instruments and apparatus fell slightly from Rs.5½ lakhs to Rs.5 lakhs and the United Kingdom's share declined from Rs.4¾ lakhs to Rs.4¼ lakhs. Accumulators to the value of Rs.18½ lakhs were imported as against Rs.25¾ lakhs in the previous year. The United Kingdom's share fell from Rs.18¼ lakhs to Rs.11½ lakhs and that of the United States from Rs.3¼ lakhs to Rs.1½ lakhs. The import of electric lighting accessories and fittings (including switches) fell from Rs.16½ lakhs to Rs.9½ lakhs, the United Kingdom's share being reduced from Rs.10¼ lakhs to Rs.5¼ lakhs, that of Germany from Rs.3 lakhs to Rs.2 lakhs and that of the United States from Rs. 1½ lakhs to Rs.½ lakh. In meters, out of a total trade of Rs.6¾ lakhs (representing a reduction of Rs.2½ lakhs), the United Kingdom supplied Rs.4½ lakhs as compared with Rs.7 lakhs in the previous year. The German imports remained steady at Rs.1¼ lakhs. Electro-medical apparatus (including X-ray apparatus) was imported to the value of Rs.3 lakhs as compared with Rs.4¼ lakhs in the previous year. The United Kingdom's share fell from Rs.1 lakh to Rs.½ lakh. In switchboards (other than telegraph and telephone) the imports increased from Rs.3 lakhs to Rs.3¼ lakhs, the United Kingdom's share being increased from Rs.2½ lakhs to Rs.3 lakhs. Other sorts of electrical goods and apparatus were imported to the value of Rs.61 lakhs as compared with Rs.60 lakhs in the previous year. Imports from the United Kingdom fell from Rs.38 lakhs to Rs.29¾ lakhs while those from the United States increased from Rs.8½ lakhs to Rs.13¼ lakhs and from Germany from Rs.7¼ lakhs to Rs.8 lakhs. Imports from " other countries " increased from Rs.2 lakhs to Rs.4 lakhs.

The provenance of the total imports was as follows :—

Principal countries of consignment.	1929-30 Rs. (lakhs).	1930-31 Rs. (lakhs).
United Kingdom	2,15	1,74
Germany	43	43
Netherlands	16	15
Italy	14	9
Japan	10	7
United States	47	44
Other countries	16	19
Total	3,61	3,11

Earthenware and Porcelain.—This classification includes :—

Articles.	1929-30 Rs. (lakhs).	1930-31 Rs. (lakhs).
Pipes of earthenware	*	†
Sanitary ware	8	6
Other kinds	32	20
Porcelain—		
Electrical	2	2
Other kinds	30	20
Total imports	72	48

* 32,198 rupees. † 28,826 rupees.

The small imports of earthenware pipes totalling only Rs.28,826 are drawn from the United Kingdom 64% and Belgium 35%. These are merely specialities as all ordinary types are now made in India. Of the sanitary earthenware, the United Kingdom in 1929/30 supplied 91%, only negligible values being imported from the United States, Czechoslovakia and Germany. Other kinds of earthenware were, in 1929/30, divided between the United Kingdom (47%), Japan (21%), the Netherlands (7½%), Germany (7%), Belgium (5½%) and China (2%). It should be noted, however, that most of the imports from Holland and Belgium were probably German goods shipped from Rotterdam and Antwerp. The true German share is probably about 18%. The imports of low-grade earthenware from Japan are practically non-competitive so far as the United Kingdom is concerned.

The meagre imports of electrical porcelain were obtained from the United Kingdom (46%), Germany (29%) and Japan (21%). Other kinds of porcelain, including tableware, common crockery, &c., were imported from Japan (80%), the United Kingdom (7%), Germany (6%) and Czechoslovakia (2%). The imports of cheap crockery from Japan have largely killed the cheap goods trade, which a few Staffordshire makers formerly held. It is in practice impossible for them to meet Japanese prices. The principal ports of entry, in order of importance, are Bombay, Rangoon, Calcutta and Karachi.

Glass and Glassware.—The following table shows the types of glass and glassware imported :—

Description.	1929-30 Rs. (lakhs).	1930-31 Rs. (lakhs.)
Bangles	85	50
Beads and false pearls	31	16
Bottles and phials	40	30
Funnels, gloves and glass parts of lamps ...	21	12
Scientific glassware	1	1
Sheet and plate glass	31	24
Tableware	13	9
Other glassware	30	22
Total imports	2,52	1,64

The severity of the economic depression and its effect in reducing the purchasing power of the people is clearly shown in the heavily reduced imports of such items as bangles and beads, which are the trinkets of the poorest classes.

The provenance of the imports was as follows:—

Countries of consignment.	1929-30 Rs. (lakhs).	1930-31 Rs. (lakhs).
United Kingdom	22	16
Germany	34	23
Belgium	24	18
Austria	5	2
Czechoslovakia	72	36
Italy	6	3
Japan	74	55
Other countries	15	11
Total	2,52	1,64

The valuable trade in glass bangles and beads is a speciality of Czechoslovakia and Japan. Germany is a competitor in bangles and Japan, Italy and Austria in beads, but the United Kingdom is not concerned with these two items.

The imports of sodawater bottles (totalling over Rs.15 lakhs in 1929/30) were equally divided between the United Kingdom and Germany. Other kinds of bottles are drawn from Japan (55%), Germany (20%), the United Kingdom (12%) and Sweden (4%). Even the Continental glass manufacturers are not able to reduce their prices to the level of the Japanese quotations. The trade in funnels, globes and glass parts of lamps is shared by Germany (45%), the United States (21%), Japan (11%), Austria (8%), Belgium (6%) and Czechoslovakia (5%). The imports of scientific glassware, which are small and declining, are obtained from Germany (56%), the United Kingdom (25%), Japan (9%) and lesser values from Austria, Switzerland and Czechoslovakia. In plate and sheet glass, however, the United Kingdom supplies 16%, representing the finer qualities, while Belgium (60%) ships large quantities of cheap window glass. Table ware is obtained from Japan (68%), Belgium (11%), Germany (8%) and the United Kingdom (7%). Miscellaneous glassware is drawn from Japan, Germany, the United Kingdom, Belgium and France in the order stated.

Building and Engineering Materials (other than Iron, Steel and Wood).

The slowing-down of most Indian industries, coupled with reduced building activity, is responsible for a drop in the total imports from Rs.134 lakhs to Rs.110 lakhs.

The principal items in the classification are the following :—

Description.	1929-30 Rs. (lakhs).	1930-31 Rs. (lakhs).
Asphalt	28	28
Bricks (other than firebricks)	*	†
Firebricks	5	2
Portland cement	60	52
Cement (other kinds)	4	3
Tiles	24	15
Other kinds	13	10
Total imports	1,34	1,10

*Rs. 35,866. †Rs. 4,469.

Detailed figures for 1930/31 are not yet available, but in the previous year the imports of asphalt were drawn from the United States (44%), Egypt (31%), the United Kingdom (9%) and Iraq (6%). The imports from Trinidad only amounted to Rs.76,000. The trifling imports of bricks were mainly obtained from the United Kingdom. Firebricks were shipped by the United Kingdom (58%) and Italy (36%). The important trade in tiles is shared by Italy (34%), the United Kingdom (24%), Belgium (23%), Germany (6%), Japan (5%) and France (5%).

Cement.—The imports of cement were drawn from :—

Countries of consignment.	1929-30		1930-31	
	Tons.	Rs. (lakhs).	Tons.	Rs. (lakhs).
United Kingdom	81,630	47	63,168	36
Germany	5,088	2	3,083	1
Japan	18,721	7	36,790	13
Other countries	15,868	8	8,961	5
Total	121,307	64	112,002	55

Two-thirds of the cement imported is for the use of the Burma and Madras markets, which are sufficiently remote from the principal Indian cement works to be free from their competition. The trade is not likely to increase as the local works can produce cement fully equal to the British standard specification at a reasonable price. They have a co-operative selling and propaganda organisation.

Hardware (excluding Cutlery and Electro-plated Ware.)—Practically every item included under this unwieldy heading marked a sharp decline during the past year. The total imports, having fallen from Rs.523 lakhs in 1928/29 to Rs.506 lakhs in 1929/30, again receded to Rs.360 lakhs in the year under review. As the pre-war annual average amounted to Rs.317 lakhs, one realises the extent of the present slump in the case of an essentially cheap bazaar trade such as hardware :—

Article.	1929-30 Rs. (lakhs).	1930-31 Rs. (lakhs).
Agricultural implements	14	9
Buckets of tinned or galvanised iron ...	2	1
Builders' hardware	40	33
Domestic hardware other than enamelled ironware	13	10
Enamelled ironware	32	24
Gas-mantles	8	6
Implements and tools (other than agricultural implements and machine tools) ...	71	49
Lamps, metal	78	52
,, glass	*	†
Parts of lamps, other than glass	10	5
Safes and strong boxes of metal	2	1
Stoves	10	6
Other sorts	2,26	1,64
Total imports	5,06	3,60

*Rs.21,729. †Rs.24,791.

The provenance of the imports during the same years was as follows :—

Principal countries of consignment.	1929-30 Rs. (lakhs).	1930-31 Rs. (lakhs).
United Kingdom	1,80	1,31
Sweden	17	13
Germany	1,65	1,08
Austria	12	7
Japan	26	21
United States	59	45
Other countries	47	35
Total	5,06	3,60

The next statement of percentage shares shows the position of the leading suppliers over a period of years :—

	1913-14 (pre-war year).	1927-28	1928-29	1929-30	1930-31
	Per cent.	Per cent.	Per cent.	Per cent.	Per cent.
United Kingdom	57	39	36	35	36
Germany ...	18	31	32	33	30
United States ...	10	12	12	12	12
Japan	1	5	5	5	6
Other countries ...	14	13	15	15	16
Total ...	100	100	100	100	100

The fact that the reduction has been distributed fairly evenly among the supplying countries and that the United Kingdom percentage has actually advanced one point, whereas the German

figure is down three points, shows that the boycott of United Kingdom goods has had little result so far as hardware is concerned and the slump in the trade may be attributed solely to economic causes. The heavy reduction in the United Kingdom share since the war and the displacement of United Kingdom hardware by German and United States products is, however, a matter for serious concern. The imports from the United Kingdom in 1929/30—before the present slump took place—were actually less in value than the average of the last five pre-war years, Rs.180 lakhs contrasted with Rs.189 lakhs. On the other hand, the imports from Germany were nearly three times the pre-war figures, Rs.165 lakhs compared with Rs.57 lakhs. The imports from the United States have more than doubled, those from Japan have increased sevenfold and those from Sweden nearly ten times. Germany is ousting us from the bazaar trades with goods frequently below the United Kingdom article in quality, but so far below it in price that dealers cannot afford to pay the premium required for the better quality and make a higher rate of profit for themselves on the Continental articles. The competition from the United States is in the higher grade tools, which were hitherto almost entirely supplied by Sheffield and Birmingham. Active marketing methods and a close consideration of the special needs of agents are largely responsible for American success. The following notes give the statistical position in each section of the trade:—

Agricultural Implements.—In 1929/30 the United Kingdom supplied 85% and the United States 10%. The trade however is a declining one on account of the strong competition met with from local productions. The Agricultural Implements Co. of Jamshedpur (a branch of the Tata Iron & Steel Co., Ltd.) produce picks, powrahs, kodalies, hammer heads and various special implements for use on tea gardens, and these products meet the requirements of a large section of the market. The large groups of gardens are still prepared to pay for the higher-grade United Kingdom article on account of its durability. The depression in the tea trade probably accounts for the reduced imports last year.

Galvanised Buckets.—The imports into India proper have almost ceased as buckets are now made locally from imported sheet and galvanised after manufacture. Burma continues to import about £12,000 worth of buckets per annum, which are mainly drawn from the United Kingdom (Germany supplied £2,500 worth in 1929/30).

Builders' Hardware, such as Locks, Hinges, Door Bolts, &c., &c.—The imports in 1929/30 were drawn from the United Kingdom (24%), Germany (58%), Sweden (11%) and the United States (2½%). The bazaars are full of cheap German productions, which meet the demand which is always present in India provided the price is sufficiently low. Not only do the dealers find it impossible

to pay the higher prices for quality goods, particularly in these times of economic stress, but they have a direct incentive to purchase the cheaper article as they are able to realise a better margin of profit on it. The principal markets in order of importance are Calcutta, Bombay, Madras, Karachi and Rangoon.

Domestic Hardware.—A similar state of affairs obtains in this trade. Arrivals from the United Kingdom remain constant at about 26%, while those from Germany now amount to 41%. The United States contributes 8%, Japan 7%, Sweden 5% and Austria 5%.

Enamelled Ironware.—The imports have steadily fallen during the past two years, partly on account of the competition from locally manufactured aluminium hollow-ware. In 1929/30 Japan supplied 56%, Czechoslovakia 22%, Germany 11%, the United Kingdom 5% and Austria 3%. Japan is displacing the Continent in this trade.

Gas Mantles.—In 1929/30 Germany shipped 61%, the United States 18% and the United Kingdom 16%. The principal markets were Bombay, Calcutta and Madras.

Implements and Tools.—The total imports fell from Rs.71 to Rs.49 lakhs owing to the general depression. In 1929/30 the United Kingdom supplied 53%, the United States 21%, Germany 18%, France 3% and Austria under 2%. There is very keen competition between United Kingdom and United States makers in the higher-grade types of tools. Calcutta is the principal market followed by Bombay, Madras, Rangoon and Karachi.

Metal Lamps.—These constitute the main item in the hardware group. Imports declined from Rs.78 to Rs.52 lakhs on account of reduced purchasing power. The trade is now divided between Germany (72%) and the United States (20%). Austria contributed 4% and the United Kingdom 1½%.

Safes and Strong-boxes of Metal.—During the past five years there has been a steady reduction in imports owing to the increasing competition of Indian makers such as the Godrej and Boyce Manufacturing Co. of Bombay, who produce cheap safes which meet the normal demand. Strong boxes are produced in increasing quantities at Multan. Bankers' strong rooms and the highest grades of safes are still supplied by United Kingdom makers. In 1929/30 the United Kingdom supplied 44%, Austria 17%, Germany 12% and the United States 10%.

Stoves.—The trade shrank from Rs.10½ to under Rs.6 lakhs. Sweden provided 71%, the United Kingdom 11%, Austria 6% and Germany 5%. Swedish wickless and other stoves are popular. The average price of the stoves imported from Sweden was slightly under Rs.4. The principal markets are Bombay and Calcutta.

Other Sorts.—Unenumerated items included under this omnibus heading amount to nearly half the total value. The trade was shared by the United Kingdom (47%), Germany (22%), United States (9%) and Czechoslovakia (4%). Japan, Austria, Belgium, France and Sweden contributing lesser values.

Cutlery.—The classification distinguishes between pruning knives—a United Kingdom trade, which has not been affected—and ordinary cutlery, the imports of which are mainly drawn from Germany and have fallen heavily during the year as a result of the depression.

	1928-29 Rs. (lakhs).	1929-30 Rs. (lakhs).	1930-31 Rs. (lakhs).
Pruning knives	2	2	2
Other kinds	34	39	24
Total imports	36	41	26
Of which from—			
United Kingdom...	11	11	8
Germany	22	27	16
Other countries	3	3	2
Total imports	36	41	26

" Other countries " are accounted for mainly by the imports from the United States which advanced from Rs.70,000 in 1925/26 to over Rs.2 lakhs in 1929/30. It is satisfactory to note that the main brunt of the decline has fallen on Germany. This is due to the fact that the bazaar trade has suffered from the depression more acutely than any other branch of the import trade.

Polishes.—After a period of steady expansion, the imports fell during the year from Rs.26 to Rs.22 lakhs. The classification was made up as follows :—

Article.	1928-29 Rs. (lakhs).	1929-30 Rs. (lakhs).	1930-31 Rs. (lakhs).
Leather polish	17	17	13
Metal polish	5	5	4
Wood polish	1	1	1
Other sorts	2	3	4
Total	25	26	22

In 1929/30 the United Kingdom provided 92% of the total. The United States supplied 2% of the leather polish, 8% of the metal polish, 20% of the wood polish and 17% of other sorts. Competition from the United States tends to increase.

Arms, Ammunition and Military Stores.—The movements of the imports under this heading on Government of India account are as follows :—

1928-29 Rs. (lakhs).	1929-30 Rs. (lakhs).	1930-31 Rs. (lakhs).
66	48	44

These are, of course, exclusively drawn from the United Kingdom. There is also a very valuable import trade on private account which is made up as follows :—

	1929-30 Rs. (lakhs).	1930-31 Rs. (lakhs).
Shot gun cartridge cases (filled)	11	9
Rifle and other cartridges (filled)	4	3
Cartridge cases (empty)	*	†
Explosives	28	24
Firearms and parts thereof...	19	15
Gunpowder	1	1
Other sorts	2	2
Total imports	65	54

*Rs.38,711. †Rs.36,237.

Filled cartridge cases were obtained from the United Kingdom (74%), the United States (12%), Germany (6%) and Belgium (6%). The trifling imports of empty cartridge cases were supplied by the United Kingdom (60%), Germany and Belgium. Of the valuable trade in explosives 95% is held by the United Kingdom, Germany, Belgium and France supplying small quantities of blasting fuses. Of the firearms and parts, the United Kingdom sent 68%, Germany 13%, the United States 6½% and Belgium 6%. United Kingdom makers are holding their ground, but the total trade has been declining for some years, probably owing to the more rigid application of the Arms Act. The United Kingdom supplies all the gunpowder imported.

Brushes and Brooms.—This heading includes :—

	1929-30 Rs. (lakhs).	1930-31 Rs. (lakhs).
Paint and varnish brushes	3·0	2·3
Toilet brushes	6·0	6·0
Other brushes	5·0	3·3
Brooms	0·5	0·4
Total imports	14·5	12·0

Paint and varnish brushes, in 1929/30, were drawn from the United Kingdom (70%), Germany (18%), Austria and Italy. In toilet brushes, however, the position is reversed, the United Kingdom only supplying a negligible quantity (9%), while the United States supplied 47%, Germany (26%) and Japan (12%). United

States enterprise in advertising and active salesmanship finds its reward in a steadily expanding trade. Other brushes for industrial and general use are supplied by the United Kingdom (48%), Germany (21%), Japan (11%) and the United States (10%). The small trade in brooms is shared by the United Kingdom and the Straits Settlements.

Toys and Requisites for Games and Sports.—As might be anticipated in the case of a luxury item such as this the total trade is reduced from Rs.65 to Rs.49 lakhs but, even so, it is about 25 per cent. above the pre-war average of Rs.40 lakhs.

1928-29	1929-30	1930-31
Rupees.	Rupees.	Rupees.
66,69,078	64,84,153	49,06,240

In 1929/30 toys accounted for Rs.44 lakhs and were derived from Japan (42%), Germany (32%), the United Kingdom (16%) and the United States (6%). Japan is obtaining an increasing share of the business.

Playing cards, of a total value of Rs.11 lakhs, were imported from the United States (47%), Belgium (39%) and the United Kingdom (8%).

Requisites for games and sports were imported in 1929/30 to the value of nearly Rs.10 lakhs and were drawn from the United Kingdom (71%), Norway (12%), and the United States (3%). The manufacture of sports goods at Sialkot and other towns in the Punjab increases. India exported last year over Rs.3 lakh's worth.

Tea Chests (Entire or in Sections).—The total imports fell from Rs.80 to Rs.63½ lakhs in value as a result of reduced activity in the tea trade. The trade, however, still stands at about 50% above the pre-war average:—

Countries of consignment.	1928-29 Rs. (lakhs).	1929-30 Rs. (lakhs).	1930-31 Rs. (lakhs).
United Kingdom	56	64	48
Russia	1	2	—
Finland	1	3	3
Esthonia	6	7	9
Other countries	3	4	3
Total	67	80	63

Over Rs.2 lakhs' worth of metal tea chests were imported in 1929/30 into the Madras Presidency. These were almost entirely drawn from the United Kingdom. Imports of wooden tea chests from Finland have fallen away during the past six years in favour of chests from Esthonia. Northern Russia supplied Rs.2 lakhs' worth in 1929/30.

Umbrellas and Umbrella Fittings.—The imports of complete umbrellas, including parasols and sunshades, were as follows :—

Countries of consignment.	1929-30		1930-31	
	No.	Rs. (lakhs).	No.	Rs. (lakhs).
United Kingdom	92,365	2·55	40,119	1
Other countries	71,979	1·70	48,929	1
Total	164,344	4·25	89,048	2

The trade has been declining for some years as the practice is now to assemble umbrellas in the country from imported cloth and fittings.

Umbrella Fittings were imported as follows :—

Countries of consignment.	1928-29 Rs. (lakhs).	1929-30 Rs. (lakhs).	1930-31 Rs. (lakhs).
United Kingdom	10	9	5
Germany	27	20	14
Japan	11	10	9
Other countries	2	1	1
Total	50	40	29

Until 1928/29 Germany was rapidly outstripping both her rivals, but has suffered severely during the recent slump.

Jewellery and Plate of Gold and Silver (*excluding Imitation Jewellery, Precious Stones and Pearls unset*).

Article.	1929-29 Rs. (lakhs).	1929-30 Rs. (lakhs).	1930-31 Rs. (lakhs).
Jewellery	9	20	34
Plate of gold and silver	6	6	5
Total	15	26	39

The increased returns are probably due to the inclusion of letter packets (containing jewellery) under this head and not, as formerly, under the classification of " Postal articles not specified." Otherwise, since the imposition of the heavy import duty of 30 per cent., the trade has steadily declined. In 1929/30, of the jewellery imported, the United Kingdom contributed 83% and France 8%. Of the gold and silver plate, the United Kingdom supplied 79%, Egypt, France, China and Germany contributing small values.

Electro-plated Ware.—The trade shows a sharp decline :—

1928-29	1929-30	1930-31
Rupees.	Rupees.	Rupees.
8,41,957	6,81,174	3,65,525

The United Kingdom, in 1929/30, supplied 93%, small values being also obtained from Germany and France.

Carriages and Carts and Parts Thereof.—The total imports were :—

1928-29	1929-30	1930-31
Rupees.	Rupees.	Rupees.
16,91,595	14,29,043	11,11,926

In 1929/30 the United Kingdom supplied 52%, Japan 21% largely jinrickshas), Germany 15% and Belgium 6%.

Oil Cloth and Floor Cloth.—The imports are reduced :—

1928-29	1929-30	1930-31
Rupees.	Rupees.	Rupees.
10,43,509	12,27,461	7,21,738

In 1929/30, the United Kingdom provided 46%, the United States 32% and Germany 6%, Austria, Belgium and Czechoslovakia sending lesser values.

Furniture and Cabinetware.—The total imports have fallen considerably :—

1928-29	1929-30	1930-31
Rupees.	Rupees.	Rupees.
36,97,638	37,66,476	27,72,733

In 1929/30, the United Kingdom contributed 37%, Germany 17%, the United States 15% and Japan 10%. Germany competes principally in mouldings while the United States supply large quantities of camp furniture.

Matches.—India is no longer dependent on overseas sources for her supply of matches as the local industry, which has developed under the protection of the tariff, is now in a position to meet practically all her requirements. The imports have, in consequence, declined from an average of 1,532,000 gross boxes valued at Rs.17 lakhs in the first five post-war years to 396,588 gross boxes valued at Rs.4 lakhs in 1930/31. The provenance of these meagre imports was as follows :—

Principal countries of consignment.	1928-29 Rs. (lakhs).	1929-30 Rs. (lakhs).	1930-31 Rs. (lakhs).
Sweden	15	10	4
Japan	1	—	—
Other countries	1	1	—
Total	17	11	4

The United Kingdom has not, in recent times, exported matches to India on a commercial scale, but the London market is financially interested in the Indian developments of the Swedish group.

Packing (Engine and Boiler) of all Kinds Excluding Asbestos.

1928-29	1929-30	1930-31
Rupees.	Rupees.	Rupees.
4,10,488	3,73,246	3,84,807

The market is supplied by United Kingdom manufacturers, the only competition encountered in 1929/30 being from the United States (Rs.37,000) and Belgium (Rs.14,000).

Toilet Requisites.—This is a comprehensive heading, including all articles for toilet use not separately classified elsewhere:—

1928-29	1929-30	1930-31
Rupees.	Rupees.	Rupees.
64,60,622	72,68,019	53,80,814

The trade, being a quasi-luxury one, has suffered on account of the depression. In 1929/30 the United Kingdom contributed 38%, the United States 27%, France 9%, Japan 8% and Germany 8%. Lesser proportions were supplied by Italy, China and Czechoslovakia. The percentage share of the United Kingdom has been declining for some years in face of increasing competition from the United States, France, and Germany. United States competition in high grade, branded goods, which are largely sold on the advertised name, is most acute.

Articles Imported by Post (*not included elsewhere*).—The postal traffic, after regular expansion for many years, showed a falling-off in 1930/31. Jewellery, precious stones, gold and silver thread, cigarettes and cinematograph films, when imported by post and referred to Collectors of Customs for assessment, are now brought to account under their appropriate heads. In 1929/30, the United Kingdom supplied 63%, Italy 17%, Germany 3%, France 3% and Switzerland 2½%. China, Japan, Ceylon, Hongkong and Austria also contributed to a lesser extent.

The cash-on-delivery parcels system with the United Kingdom is a great convenience to residents in India and is being increasingly used. The following are the returns of the C.O.D. parcels received from Great Britain and Northern Ireland in 1928/29 and 1929/30:—

Year.	Number.	Value.
		£
1928-29	97,546	324,000
1929-30	99,340	343,000

Of these parcels, 5,103, or 5%, were returned as undeliverable in 1929/30.

RAW MATERIALS AND SEMI-MANUFACTURED ARTICLES.

Coal.—There has been a sharp fall in the imports of coal, due to diminished imports into Bombay. The figures for Karachi and Rangoon were well maintained and Madras actually increased its takings by 12,000 tons. The most recent figures are:—

Countries of consignment.	1929-30		1930-31	
	Tons.	Rs. (lakhs).	Tons.	Rs. (lakhs).
United Kingdom	18,812	4	23,245	5
Union of South Africa ...	197,404	36	121,533	21
Portuguese East Africa ...	150	—	5,061	1
Australia	1,840	*	1,455	*
Other countries	6,020	1	4,394	1
Total	224,226	41	155,688	28

* 30,000 rupees.

The following table gives the average prices per ton of Bengal, Cardiff and Natal coal in the Bombay market in 1928, 1929 and the first six months of 1930:—

	Bengal. Per ton.	Cardiff. Per ton.	Natal. Per ton.
	Rs. As. Ps.	Rs. As. Ps.	Rs. As. Ps.
1928	(*a*) 18 3 0 (*d*)	(*b*) 21 11 2 (*e*)	(*b*) 16 8 4 (*c*)
1929	(*a*) 18 5 0 (*d*)	(*b*) 21 9 1 (*e*) (*f*)	(*b*) 16 15 11 (*c*)
1930 (6 months)	(*a*) 18 4 0 (*d*)	—	(*b*) 15 6 8 (*c*)

(*a*) *ex* scales.
(*b*) Sterling quotations converted into rupee prices at current rates of exchange.
(*c*) C.I.F.
(*d*) Desterghur.
(*e*) Best Welsh, two-thirds large, one-third small, c.i.f.
(*f*) Average of three months quotations.

Coke.—The imports have been well maintained.

1928-29	1929-30	1930-31
Rupees.	Rupees.	Rupees.
6,14,058	4,09,683	6,40,572

In 1930/31, the United Kingdom supplied 3,417 tons valued at Rs.1,37,142 and Natal 9,180 tons valued at Rs.2,62,263.

Mineral Oils.—The following are the most recently available statistics. In addition large supplies of refined petroleum products are received from Burma, especially kerosene, petrol and batching oils:—

Kerosene Oil.—

Countries of consignment.	1929-30 Rs. (lakhs).	1930-31 Rs. (lakhs).
Russia	42	56
Georgia	1,07	1,21
Azerbaijan	44	65
Persia	1,58	86
Straits Settlements (including Labuan) ...	58	2
Sumatra	—	—
Borneo	21	—
United States	1,47	1,43
Other countries	11	61
Total	5,88	5,34

It will be remarked that Russia and Russian territories (Georgia and Azerbaijan) have increased their shipments from Rs.1,93 lakhs to Rs.2,42 lakhs and now supply 45% of the total imports of kerosene. The decline in the imports from Persia, the Straits Settlements and Borneo is noteworthy.

Fuel Oils.—The imports were :—

Countries of consignment.	1929-30 Rs. (lakhs).	1930-31 Rs. (lakhs).
Persia	1,49	1,42
Straits Settlements (including Labuan) ...	23	10
Borneo	37	54
Other countries	*	5
Total	2,09	2,11

* 20,765 rupees.

The Anglo-Persian Oil Co., Ltd. supplies the bulk of the fuel oils which are mainly imported into Bombay.

Petrol.—The increased imports under the Customs heading of " Petroleum, dangerous, flashing below 76 degrees F. including petrol, benzine and benzol " have been prodigious and reflect the development of motoring in India. The total trade rose from 4,654,619 gallons to 8,836,361 gallons in bulk and from Rs.38 to Rs.73 lakhs in value. In 1929/30 the imports were mainly drawn from the United States (55%) and the Straits Settlements (28%) with lesser values from Sumatra and Persia. In addition, the Burmah Oil Co., Ltd. supplies large quantities of petrol produced in Burma.

Lubricating Oils.—Batching oils for use in textile manufacture were imported to the extent of Rs.72 lakhs in value, of which the United States supplied 64% and Dutch Borneo 35%. Other lubricating oils were derived as follows :—

Country of consignment.	1928-29 Rs. (lakhs).	1929-30 Rs. (lakhs).	1930-31 Rs. (lakhs).
United Kingdom	13	24	20
United States	1,12	1,03	1,04
Other countries	10	3	6
Total	1,35	1,30	1,30

United Kingdom lubricants alone suffered a reduction, probably owing to the fact that, in times of depression, many Indian industrialists are not prepared to pay for the highest quality and attempt to economise by substitution. The gradual development of aviation should create a market for the finest grade United Kingdom lubricants.

Salt.—Valuable markets for imported salt exist in Bengal and Burma and the import trade has recently been worth £1,000,000 per annum. The Indian Tariff Board, however, has recently been considering the desirability of encouraging and protecting the production of salt in India. Readers interested should refer to page 107 for a record of the Board's findings. The latest statistics of imports are as follows:—

Principal countries of consignment.	1929-30		1930-31	
	Tons.	Rs. (lakhs).	Tons.	(Rs. lakhs).
United Kingdom	83,094	19	41,597	9
Germany	62,904	14	97,014	20
Spain	69,368	14	66,916	13
Aden and Dependencies ...	231,710	44	188,456	28
Egypt	104,879	21	128,681	22
Italian East Africa	68,465	13	154,139	22
Other countries	23,426	5	26,840	3
Total	643,846	1,30	703,643	1,17

These figures disclose a considerable reduction in the price per ton.

Sugar.—Sugar last year ranked third in the list of India's imports, being exceeded in value only by cotton piecegoods and machinery. As might be expected, the total imports of all kinds of sugar fell from just over Rs.16 crores in 1928/29 to Rs.15¾ crores in 1929/30 and to under Rs.11 crores in the year under review. The main heading of " 16 Dutch Standard and above " has been sub-divided from April, 1930, into (a) " 23 Dutch Standard and above " and (b) " Below 23 Dutch Standard but not below 16 D.S." The year's imports were obtained as follows:—

Sugar—23 Dutch Standard and above.

Countries of consignment.	Tons.	Rs. (lakhs).
United Kingdom	1,235	2
Belgium	331	1
Ceylon	5,722	9
Straits Settlements (including Labuan) ...	369	1
Java	715,307	8,44
China	4,657	8
Other countries	241	1
Total	727,862	8,66

Sugar—below 23 Dutch Standard and not below 16 D.S.

Countries of consignment.	Tons.	Rs. (lakhs).
United Kingdom	18	*
Java	87,000	92
China	314	1
Other countries	91	†
Total	87,423	93

*Rs.9,067. †Rs.27,172.

Beet Sugar.—India's offtake of beet sugar is spasmodic, depending entirely upon the relative price of cane sugar. The past year has witnessed a heavy fall in the imports of beet sugar, the figures being as follows:—

Principal countries of consignment.	1929-30 Rs. (lakhs).	1930-31 Rs. (lakhs).
United Kingdom	78	7
Poland	3	2
Germany	24	15
Netherlands	4	1
Belgium	2	—
France	20	—
Austria	2	—
Hungary	59	16
Czechoslovakia	18	1
Serb-Croat-Slovene State	7	—
Other countries	7	45
Total	2,24	87

The following table gives the other types of imported sugar:—

	1929-30 Rs. (lakhs).	1930-31 Rs. (lakhs).
Sugar, 15 Dutch Standard and below ...	3	7
Molasses	26	43

The trade in molasses is a valuable one and is entirely conducted with Java. The business is being actively developed by the Pure Cane Molasses Co. of India, Ltd. with headquarters at Calcutta, where the company has facilities for bulk storage.

APPENDIX I.

TOTAL OVERSEAS TRADE OF INDIA WITH PRINCIPAL COUNTRIES, SHOWING NET BALANCES.

	1913-14			1929-30			1930-31		
	Exports.	Imports.	Net imports (−) or exports(+)	Exports.	Imports.	Net imports (−) or exports(+)	Exports.	Imports.	Net imports (−) or exports(+)
	Rs. (crores)	Rs. (crores)	Rs. (crores)	Rs. (crores)	Rs. (crores)	Rs. (crores)	Rs. (crores)	Rs. (crores)	Rs. (crores)
United Kingdom ...	58	117	−59	69	103	−34	54	61	− 7
Other British Possessions	36	11	+25	45	21	+24	36	15	+21
TOTAL BRITISH EMPIRE	94	128	−34	114	124	−10	90	76	+14
EUROPE	85	30	+55	84	49	+35	53	36	+17
UNITED STATES ...	22	5	+17	37	18	+19	21	15	+ 6
JAPAN	23	5	+18	33	24	+ 9	24	15	+ 9
OTHER FOREIGN COUNTRIES	25	15	+10	50	26	+24	38	23	+15
TOTAL FOREIGN COUNTRIES	155	55	+100	204	117	+87	136	89	+47
GRAND TOTAL ...	249	183	+66	318	241	+77	226	165	+61

APPENDIX II.

SHOWING POSITION OF THE PRINCIPAL SUPPLIERS IN CERTAIN CHIEF ITEMS OF IMPORTS.

	Iron and steel.			Machinery.			Hardware.			Motor cars, motor cycles, etc.		
	1913-14	1929-30	1930-31	1913-14	1929-30	1930-31	1913-14	1929-30	1930-31	1913-14	1929-30	1930-31
	Per cent.	Per cent.	Per cent.	Per cent.	Per cent.	Per cent.	Per cent.	Per cent.	Per cent.	Per cent.	Per cent.	Per cent.
United Kingdom	69·9	59·2	52·3	89·8	75·1	74·7	57·2	35·6	36·4	71·3	20·8	23·7
United States	2·6	3·1	4·6	3·3	9·6	11·4	9·7	11·7	12·5	15·1	59·1	48·3
Germany	14·5	5·7	6·9	5·6	9·5	8·2	18·2	32·6	29·9	—	1·1	1·5
Belgium	11·5	23·5	24·9	—	1·0	—	—	0·8	0·9	4·5	0·3	0·4
Japan	—	—	—	—	—	—	1·5	5·1	5·8	—	—	0·2
France	—	5·0	4·1	—	—	—	—	1·0	0·6	4·5	1·7	1·8
Netherlands	—	—	—	—	—	—	—	—	—	—	—	—
Italy	—	—	—	—	—	—	—	—	—	—	3·8	4·5
Canada	—	—	—	—	—	—	—	—	—	—	12·7	19·0
Percentage of total trade represented by countries shown	98·5	96·5	92·8	98·7	95·2	94·3	86·6	86·8	86·1	95·4	99·5	99·4
TOTAL VALUE OF TRADE Rs. (lakhs) ...	16,01	17,21	10,89	7,76	18,22	14,35	3,95	5,07	3,60	1,53	7,52	4,99

APPENDIX II—*continued.*

	Instruments.			Cotton manufactures.			Liquors.			Paper.		
	1913-14	1929-30	1930-31	1913-14	1929-30	1930-31	1913-14	1929-30	1930-31	1913-14	1929-30	1930-31
	Per cent.	Per cent.	Per cent.	Per cent.	Per cent.	Per cent.	Per cent.	Per cent.	Per cent.	Per cent.	Per cent.	Per cent.
United Kingdom	75·3	56·4	53·4	90·1	63·5	58·0	62·9	58·5	59·6	56·0	32·7	31·2
United States	8·0	14·7	16·4	0·4	1·5	1·0	2·7	5·0	5·0	—	2·2	4·5
Germany	8·2	14·3	15·7	2·1	0·4	0·4	10·7	9·9	9·3	17·0	12·0	9·7
Belgium	—	1·3	2·1	—	0·2	0·2	—	—	—	—	—	—
Japan	0·6	2·2	1·9	1·8	26·5	30·3	—	—	—	—	—	—
France	—	1·6	1·5	—	—	0·2	18·8	17·0	15·4	—	1·2	0·5
Netherlands	—	3·4	3·5	1·6	2·0	2·5	—	2·5	2·9	2·5	7·0	7·0
Italy	2·2	2·8	2·0	1·5	1·9	1·5	—	—	—	—	—	—
Switzerland	—	—	—	—	1·0	1·0	—	—	—	—	—	—
China	—	—	—	0·1	2·4	4·3	—	—	—	—	—	—
Norway	—	—	—	—	—	—	—	—	—	5·0	14·2	15·0
Sweden	—	—	—	—	—	—	—	—	—	3·1	10·3	10·4
Austria	—	—	—	—	—	—	—	—	—	8·3	9·0	10·3
Percentage of total trade represented by countries shown	94·3	96·7	96·5	97·6	99·4	99·4	95·1	92·9	92·2	91·9	88·6	88·6
TOTAL VALUE OF TRADE Rs. (lakhs). ...	1,82	5,38	4,77	66,30	59,49	25,26	2,24	3,77	3,32	1,59	3,72	2,87

APPENDIX III.

VALUE OF TRADE WITH PRINCIPAL COUNTRIES, DISTINGUISHING PRINCIPAL ARTICLES.

TABLE A.

Articles.	Pre-war average.	1928-29	1929-30	1930-31
		(Rs. 000's omitted)		
UNITED KINGDOM.				
Imports therefrom—				
Animals, living	5,02	8,92	8,76	7,45
Apparel	59,29	69,86	59,54	33,57
Arms, ammunition, etc. ...	30,60	51,54	53,39	44,79
Artificial silk yarn ...	—	30,52	19,52	11,98
Asbestos	—	24,84	21,68	17,81
Belting for machinery ...	36,26	65,52	67,67	46,34
Bobbins	—	32,22	35,48	34,49
Books and printed matter	41,05	55,88	60,96	51,51
Boots and shoes	51,33	26,90	22,28	11,15
Building materials ...	59,89	69,82	65,37	48,26
Carriages and carts ...	19,11	7,98	7,43	5,73
Chemicals	69,55	1,47,29	1,59,33	1,41,08
China clay	—	9,65	15,10	7,06
Coal and coke	41,33	10,24	5,16	6,36
Cordage and rope ...	4,39	4,21	5,10	4,96
Cotton—				
Raw	58,67	11,77	4,64	27,42
Twist and yarn... ...	3,35,18	3,56,10	2,95,91	1,26,57
Piecegoods—				
Grey	20,73,55	13,78,09	11,75,99	2,81,28
White	10,87,38	14,23,36	12,02,58	5,22,94
Coloured	11,29,72	11,99,30	9,50,44	4,47,56
Other manufactures ...	1,40,25	1,51,88	1,55,03	85,97
Cutlery	10,53	10,90	11,13	8,30
Cycles and parts	29,40	1,07,28	96,62	47,62
Drugs and medicines ...	54,03	88,98	95,29	64,37
Dyeing and tanning substances	6,90	16,87	22,08	16,68
Earthenware and porcelain	30,50	28,27	25,68	18,00
Flax manufactures ...	28,83	34,29	32,35	20,67
Furniture	10,84	13,11	14,00	11,75
Glass and glassware ...	22,26	20,73	22,15	16,32
Haberdashery and millinery	61,21	27,32	26,26	18,46
Hardware	1,88,61	1,88,73	1,80,42	1,31,49
Instruments, apparatus, etc.	1,04,88	2,88,32	3,03,30	2,55,04
Ivory	11,33	8,79	5,94	5,78
Jewellery, etc.	14,51	11,15	21,60	36,77
Jute manufactures ...	10,09	6,04	6,73	3,24
Leather, including hides, tanned, etc.	38,59	39,94	42,00	25,49
Liquors—				
Ale, beer and porter ...	45,64	61,30	68,65	63,69
Spirits	69,47	1,36,04	1,40,61	1,25,13
Wines	13,62	10,72	10,43	8,47
Machinery and millwork ...	4,97,69	14,09,41	13,68,28	10,72,18
Manures	1,68	23,63	31,45	35,05

TABLE A—*continued.*

Articles.	Pre-war average.	1928-29	1929-30	1930-31
		(Rs. 000's omitted)		
Metals—				
Aluminium	5,38	35,71	39,79	21,32
Brass	6,13	84,09	56,03	28,17
Copper	1,67,45	49,25	29,96	29,55
Iron	28,88	7,06	7,93	6,28
Iron or steel	6,96,13	11,90,05	9,28,78	5,13,34
Lead	13,99	3,88	4,20	3,42
Steel	42,02	1,07,94	81,59	50,23
Zinc	14,85	15,22	11,81	5,25
Others	27,43	22,65	26,69	20,91
Motor cars and motor cycles, etc.	74,50	1,62,99	1,59,02	93,87
Oils, mineral	22,31	19,99	32,13	25,57
,, vegetable, animal, etc.	17,76	14,76	14,44	11,87
Packing, engine and boiler	4,98	3,61	3,02	3,36
Paints and painters' materials	56,00	1,04,02	99,98	74,28
Paper and pasteboard ...	73,44	1,23,24	1,21,87	89,36
Piecegoods of cotton and artificial silk	—	84,12	41,55	12,74
Pitch and tar	8,72	2,23	2,42	1,49
Polishes	9,48	22,62	24,22	19,58
Precious stones	14	9,84	10,17	1,94
Printing materials ...	14,70	26,90	25,71	16,99
Provisions	1,34,15	2,25,46	2,35,11	1,94,36
Railway plant, etc. ...	5,54,48	—	—	—
Rubber manufactures, including tyres, etc. ...	16,45	89,79	1,11,45	73,60
Salt	23,44	19,53	19,49	8,86
Ships, parts of	18,00	19,00	10,04	12,39
Silk manufactures, including yarn	19,07	11,08	8,17	6,64
Soap	56,52	1,38,85	1,45,81	97,83
Stationery	41,44	55,10	55,53	43,76
Sugar	25,37	10,10	1,03,20	10,04
Tallow and stearine ...	10,43	4,41	6,34	4,45
Tea-chests	41,32	55,93	63,96	47,77
Tobacco	51,83	2,13,75	2,26,40	1,29,98
Toilet requisites	10,35	25,89	27,90	19,37
Toys and requisites for games	16,75	16,50	15,30	12,20
Umbrellas	24,71	15,62	11,23	5,73
Woollen manufactures, including yarn	1,85,24	1,65,22	1,28,12	67,32
Other articles	1,50,99	5,00,32	5,04,61	4,18,95
Total	91,58,01	1,13,24,43	1,03,10,30	61,28,65

TABLE B.

Articles.	Pre-war average.	1928-29	1929-30	1930-31
		(Rs. 000's omitted)		
ITALY.				
Imports therefrom—				
Apparel	6,98	13,11	11,86	5,72
Art, works of	45	1,51	77	1,51
Building materials ...	2,57	10,14	13,67	7,26
Buttons	—	9,54	6,03	3,05
Chemicals	4,72	14,50	21,24	19,23
Dyeing and tanning substances	1,49	15,80	7,24	8,34
Fruits and vegetables ...	8,48	27,11	38,26	28,33
Glassware	4,26	5,28	6,12	2,73
Instruments	1,70	13,83	15,14	9,66
Liquor	78	3,45	3,02	2,81
Machinery	1,44	16,64	15,39	15,24
Metals—				
Aluminium	9	57	1,52	24
Brass	1,09	26	35	39
German silver	—	5,60	4,28	3,85
Quicksilver	—	5,42	4,40	5,11
Others	67	4,40	7,03	3,76
Motor cars, etc.	66	27,51	28,23	19,61
Paper and pasteboard ...	79	5,82	5,24	3,12
Rubber manufactures ...	13	20,41	23,62	16,47
Stone and marble... ...	2,48	2,81	3,64	3,10
Sugar	23	—	4	—
Textiles—				
Artificial silk yarn ...	—	61,04	45,81	50,60
Cotton, raw	11	10	16,61	6,71
,, twist and yarn	4,98	10,25	16,57	36,77
,, manufactures	45,22	1,31,49	95,65	36,76
Haberdashery and millinery	4,32	12,04	9,42	9,18
Silk manufactures ...	19,83	43,29	30,54	16,64
Piecegoods of cotton and artificial silk	—	92,64	51,18	19,64
Wool manufactures ...	4,07	90,86	83,01	62,23
Other articles	27,30	90,38	1,07,49	1,48,46
Total	1,44,84	7,35,80	6,73,37	4,50,52

TABLE C.

Articles.	Pre-war average.	1928-29	1929-30	1930-31
		(Rs. 000's omitted)		
BELGIUM.				
Imports therefrom—				
Artificial silk	—	10,67	5,48	2,57
Arms, etc.	26	2,42	2,55	1,66
Building materials ...	4,04	5,81	7,46	4,84
Cotton manufactures ...	42,12	23,54	14,04	6,15
Dyeing and tanning substances	10,82	2,13	1,12	75
Earthenware and porcelain	3,45	2,19	2,24	1,26
Glass and glassware ...	16,92	24,82	23,68	17,53
Hardware	5,58	5,22	4,00	3,21
Liquors	1,50	1,64	1,65	2,06
Machinery and millwork ...	1,76	16,91	17,68	14,39
Manures	75	9,11	8,68	3,44
Metals—				
Brass	37	1,09	78	1,45
Copper	3,54	10,33	4,96	4,59
Iron	15,95	2,89	2,49	1,98
Iron or steel	45,46	2,98,21	2,87,65	2,18,14
Steel	63,54	1,05,95	1,14,02	51,01
Motor cars, etc.	4,15	1,78	2,27	1,21
Paints and painters' materials	2,08	4,51	5,70	4,85
Paper and pasteboard ...	5,00	8,28	7,26	5,42
Precious stones	1	72,49	65,90	39,50
Provisions	1,41	21,21	7,62	12,56
Railway plant, etc. ...	4,28	—	—	—
Sugar	29	97	3,57	76
Woollen manufactures ...	2,11	8,30	6,68	4,33
Other articles	40,61	79,50	81,20	63,35
Total	2,76,00	7,19,97	6,78,68	4,67,01

TABLE D.

Articles.	Pre-war average.	1928-29	1929-30	1930-31
		(Rs. 000's omitted)		
GERMANY.				
Imports therefrom—				
Apparel	14,87	22,01	17,12	12,53
Bobbins	—	39	50	1,96
Building materials ...	6,72	3,58	4,09	2,55
Buttons	—	7,16	5,72	3,23
Carriages	2,81	2,07	2,23	1,21
Chemicals	10,62	41,49	43,77	47,88
Clocks and watches ...	1,36	7,09	6,63	5,30
Cutlery	7,95	22,24	26,80	15,72
Cycles	1,75	16,91	13,72	11,28
Drugs and medicines ...	6,19	36,45	40,61	48,13
Dyeing substances ...	87,40	1,55,85	1,28,52	1,61,06
Glassware	23,69	40,73	34,18	23,50
Hardware	57,24	1,68,62	1,65,31	1,07,72
Instruments	13,57	65,54	77,15	75,24
Liquors	19,41	35,76	37,24	30,73
Machinery	30,27	1,13,98	1,73,79	1,18,06
Manures	2,20	10,13	17,91	7,56
Metals—				
Aluminium	12,16	5,07	13,86	13,21
Brass	1,56	1,19,67	1,25,44	98,76
Copper	93,41	48,58	30,71	28,60
Iron	2,86	92	16	1,09
Iron or steel	86,97	80,76	79,16	69,95
Steel	65,19	25,74	19,39	4,34
Zinc	3,24	5,05	16,16	3,77
Motor cars, etc.	5,64	6,23	8,52	12,36
Oils	19,57	41,90	27,48	12,45
Paints and painters' materials	5,58	10,05	12,87	11,76
Paper and pasteboard ...	21,82	43,70	44,51	27,88
Paper-making materials ...	1,61	1,95	2,84	2,77
Printing materials ...	1,02	9,10	10,33	5,62
Provisions	5,50	4,48	7,24	9,66
Railway plant	12,19	—	—	—
Rubber manufactures ...	3,82	16,48	33,90	29,47
Salt...	9,46	16,73	14,30	20,25
Stationery	5,04	26,89	26,78	19,49
Sugar	3,84	54	27,56	15,04
Textiles—				
Artificial silk	—	39,10	16,84	9,21
Cotton manufactures ...	83,71	29,48	22,71	11,01
Haberdashery	22,10	39,85	23,22	15,55
Silk manufactures ...	16,81	17,34	13,72	6,66
Wool manufactures ...	90,62	85,11	62,41	31,78
Toys	11,10	16,72	15,28	8,29
Umbrellas	7,66	26,80	19,77	14,36
Other articles	57,03	1,16,12	1,08,76	81,63
Total	9,35,56	15,84,36	15,79,21	12,38,42

TABLE E.

Articles.	Pre-war average.	1928-29	1929-30	1930-31
JAPAN.		(Rs. 000's omitted)		
Imports therefrom—				
Ale, beer and porter ...	3	3,84	4,58	4,60
Apparel	9,17	20,02	18,73	18,50
Artificial silk	—	33,86	1,45,47	1,54,11
Bobbins	—	2,24	2,96	4,92
Boots and shoes	16	3,05	29,42	67,16
Brass, bronze, etc. ...	7	35,50	32,87	24,70
Brushes and brooms ...	48	1,17	1,27	1,10
Buttons of all sorts ...	—	9,09	8,29	5,36
Camphor	11,48	18,35	19,16	9,33
Carriages	11	4,78	3,11	3,30
Cement	1	5,65	6,86	12,85
Chemicals	93	3,58	5,22	4,37
Coal and coke	7,02	13	20	19
Copper	27,99	3	4,11	53
Cotton, raw	9	1	60	5,28
,, hosiery	65,23	1,25,19	1,23,35	76,51
,, piecegoods ...	6,10	8,89,29	12,69,56	5,92,90
,, yarn	6,16	1,23,72	1,63,78	83,56
,, other manufactures	2,12	16,94	17,48	12,79
Drugs and medicines (other than camphor)	1,72	5,91	7,76	6,71
Earthenware and porcelain	4,23	25,35	31,47	21,31
Furniture and cabinetware	71	3,34	3,98	1,90
Glass and glassware—				
Bangles	5	22,48	24,95	19,84
Beads and false pearls	7,61	10,26	9,33	5,06
Bottles and phials ...	1,00	11,83	13,73	11,92
Funnels, globes, etc. ...	58	2,76	2,36	1,35
Tableware	1,41	6,81	9,04	5,74
Others	3,35	15,44	14,77	10,81
Haberdashery & millinery	10,88	19,66	20,24	13,36
Hardware	3,59	28,60	26,05	20,91
Instruments	85	7,40	12,07	9,65
Iron or steel	—	1,92	3,73	5,14
Machinery and millwork...	63	4,52	6,30	4,85
Matches	28,40	81	50	16
Paints & painters' materials	—	2,90	3,35	4,30
Paper and pasteboard ...	55	7,50	10,41	11,08
Provisions & oilmen's stores	1,57	2,50	3,37	2,09
Rubber manufactures ...	—	1,12	81	2,19
Silk, raw	1,15	7,13	1,60	65
,, manufactures ...	1,31,45	1,67,24	1,60,24	89,01
Spices, ginger	3,40	1,87	1,45	61
Stationery (excluding paper)	2,17	6,71	6,66	4,74
Tea-chests	87	68	64	76
Toilet requisites ...	1,31	4,41	5,94	3,33
Toys and requisites for games	3,16	16,48	18,84	13,10
Umbrellas and umbrella fittings	4,91	11,15	10,37	8,69
Wood, timber	32	8,08	20,74	24,06
,, manufactures ...	71	7,54	9,67	6,34
Woollen manufactures ...	8	2,88	5,14	3,19
Other articles	10,54	55,95	56,02	56,19
Total	3,64,35	17,67,67	23,58,55	14,51,10

TABLE F.

Articles.	Pre-war average.	1928-29	1929-30	1930-31
		(Rs. 000's omitted)		
UNITED STATES.				
Imports therefrom—				
Aluminium	4,26	40,90	52,99	42,11
Apparel	33	13,13	15,79	10,85
Arms	80	3,15	3,48	2,89
Belting for machinery ...	1,11	9,29	12,12	9,41
Boots and shoes	54	15,65	10,41	1,53
Building materials ...	88	10,14	17,26	14,23
Carriages	72	52	31	26
Chemicals	22	11,68	11,79	13,48
Clocks and watches ...	3,82	5,43	4,19	2,97
Copper	—	11,28	4,11	17,90
Cotton, raw	27,72	1,37,96	19,59	83,15
,, piecegoods ...	26,44	79,25	87,78	26,58
Drugs and medicines ...	4,18	18,97	23,46	22,22
Dyeing substances ...	—	13,88	16,13	13,77
Furniture	1,44	6,01	5,82	2,83
Glassware	1,17	4,61	5,44	3,53
Hardware	24,72	61,16	59,23	44,93
Instruments	5,86	73,00	79,35	78,71
Iron and steel	48,56	61,42	52,48	49,73
Leather	—	14,85	17,64	14,25
Machinery	24,56	2,06,79	1,75,22	1,64,15
Manures	—	7,66	14,50	5,72
Motor cars, etc.	8,49	4,18,61	4,44,91	2,41,16
Oils, mineral	2,19,66	2,62,39	3,12,07	3,67,94
Paper and pasteboard ...	1,21	8,33	8,02	12,98
Provisions	3,80	43,97	48,05	40,42
Railway plant	54	—	—	—
Rubber	16	49,38	72,71	85,85
Spirit	5,34	16,99	18,71	16,46
Stationery	2,05	5,44	5,04	4,49
Sugar	18	64	62	48
Tobacco	5,90	57,27	39,11	14,29
Toilet requisites	2,22	17,27	19,75	17,48
Wood and timber	6,56	6,80	9,37	7,26
Other articles	15,59	98,20	99,70	78,81
Total	4,49,03	17,92,02	17,66,15	15,12,39

TABLE G.

Articles.	Pre-war average.	1928-29	1929-30	1930-31
		(Rs. 000's omitted)		
FRANCE.				
Imports therefrom—				
Apparel	40,03	33,27	35,78	22,00
Artificial silk	—	9,26	14,12	2,37
Chemicals	47	3,58	3,80	3,10
Clocks and watches ...	4,65	1,43	1,06	84
Cotton manufactures ...	2,88	11,18	9,65	5,33
Drugs and medicines ...	2,65	9,79	13,18	11,21
Dyeing and tanning substances	6,02	13,98	6,11	4,08
Fruits and vegetables ...	8,96	9,71	2,74	1,49
Hardware	2,18	4,85	5,16	2,29
Haberdashery	8,25	4,79	3,96	3,12
Instruments	4,20	7,88	8,42	7,30
Liquors	38,04	63,55	63,99	50,94
Machinery	31	4,68	4,94	6,26
Metals—				
Brass	16	5,51	3,27	2,45
Copper	12,93	21,09	18,03	19,56
Iron or steel	2,84	37,24	27,96	22,75
Steel	20	22,30	12,23	6,79
Motor cars, etc.	5,94	10,35	12,87	9,03
Oils	82	1,83	2,22	1,49
Provisions	3,07	8,46	7,72	8,07
Rubber manufactures ...	1,78	32,94	21,74	16,92
Seeds	51	5,17	6,07	8
Sugar	43	1,37	21,31	—
Silk manufactures ...	27,18	13,45	10,21	3,48
Wool manufactures ...	12,64	67,49	66,82	27,51
Toilet requisites	68	5,92	6,67	5,54
Umbrellas	81	66	96	66
Other articles	31,87	65,83	66,24	44,24
Total	2,20,50	4,77,56	4,57,23	2,88,90

APPENDIX IV.

List of the Reports of the Indian Tariff Board Mentioned in Chapter IV.

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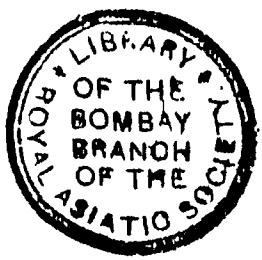
Conditions and Prospects of United Kingdom Trade IN INDIA

1932-1933

(*Revised to July*, 1933)



REPORT

BY

SIR THOMAS M. AINSCOUGH, C.B.E., M.Com., F.R.G.S.

H.M. Senior Trade Commissioner in India and Ceylon

(*The previous Report covered the year* 1930-31)

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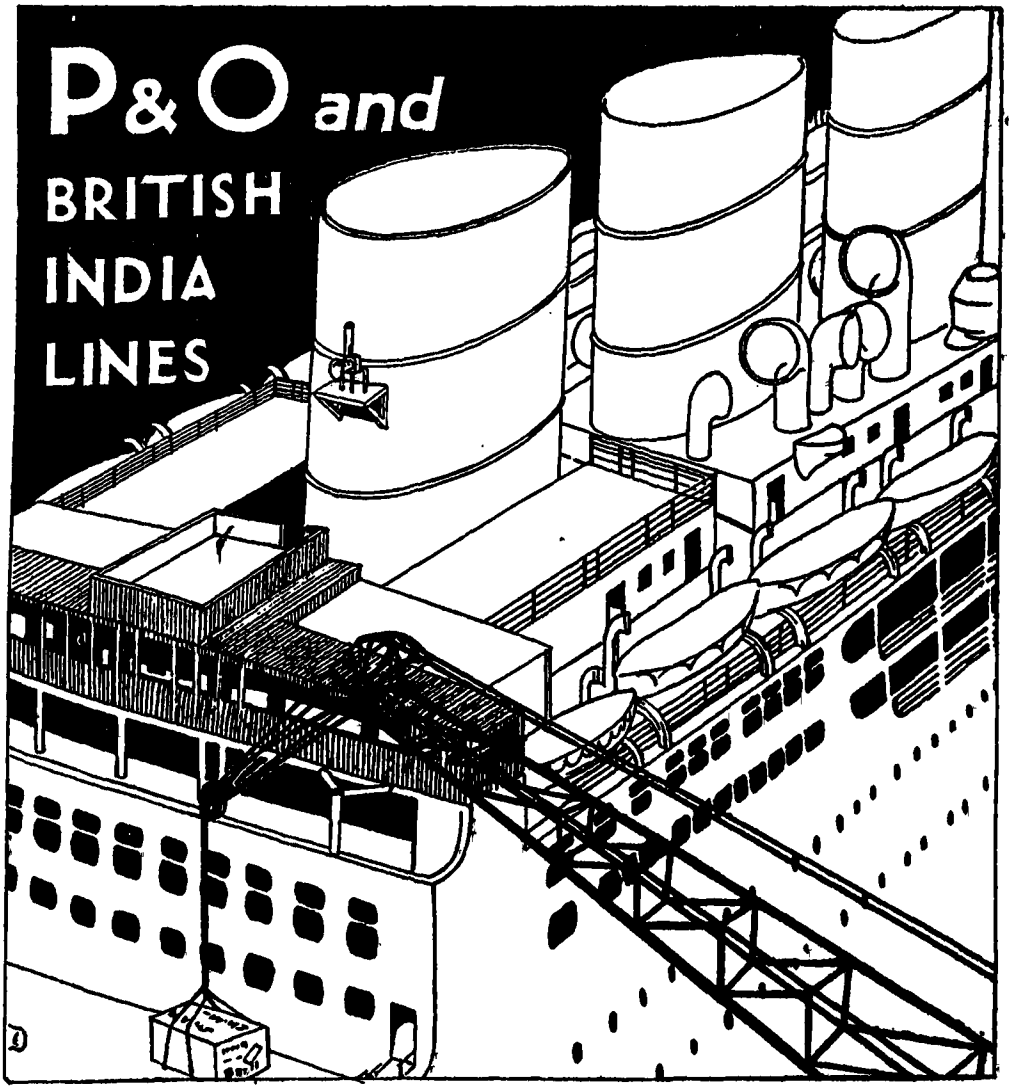

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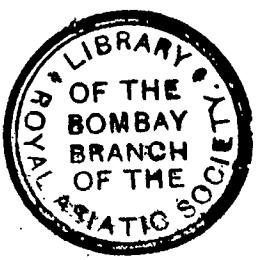

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NOTE.

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COVERING DESPATCH

To the Right Honourable Walter Runciman, P.C., M.P., President of the Board of Trade.

Office of H.M. Senior Trade Commissioner in India,
" Fairlie House," Fairlie Place,
Calcutta.

July 21st, 1933.

SIR,

I have the honour to forward for your information a Report on the Conditions and Prospects of United Kingdom Trade in India during the Indian fiscal year 1932/33 revised to July, 1933.

The year has been an abnormal one in that the further heavy fall in India's exports was fortunately more than offset by the shipments of gold bullion, which enabled the international balance to be maintained, relieved distress among the cultivators and released a certain amount of purchasing power, which was expended in low-priced imported goods, mainly of Japanese origin.

The period under review is noteworthy if only for the reason that a definite check has been given to the downward trend, which had been almost continuous during the past twelve years of the United Kingdom share of India's imports. This satisfactory change became apparent before the epoch-making trade agreement between the two countries was concluded at Ottawa and ratified by the Government of India, in December, 1932. The beneficial effects of the preferential duties are already beginning to be realised and will become more marked as the economic depression lifts. I am hopeful that the general revival in trade, of which there are unmistakable signs, will be accompanied by a steady strengthening of the United Kingdom position in the import trade of her most valuable market. This, however, can only be accomplished by systematic and carefully planned effort on the part of United Kingdom manufacturers and merchants and a determination to follow up, with energy and imaginative foresight, the fiscal advantages which were secured for them at the Ottawa Conference.

Once again I have pleasure in acknowledging my indebtedness to the Officials of the Commerce, Industries and Finance Departments of the Government of India for their unfailing courtesy and assistance during a difficult year. Special thanks are due to the Director-General of Commercial Intelligence and Statistics and his staff, who have prepared the special tables embodied in the report, to the Chief Controller and staff of the Indian Stores Department and, above all, to the Collectors of Customs for their valuable help and co-operation which has always been so willingly rendered.

I have the honour to be, Sir,

Your most obedient servant,

THOMAS M. AINSCOUGH,
H.M. Senior Trade Commissioner in India.

PREFATORY TABLES

NOTE.—*The author desires to express his indebtedness to the Director-General of Commercial Intelligence and Statistics for the particulars given in these tables.*

I.—TRADE DISTRIBUTION :- PRINCIPAL ARTICLES

TABLE SHOWING VARIATIONS IN THE SHARES OF THE PRINCIPAL ARTICLES IN THE IMPORT AND EXPORT TRADE OF BRITISH INDIA DURING THE LAST THREE YEARS, AS COMPARED WITH AVERAGES OF THE PRE-WAR AND WAR PERIODS.

IMPORTS (*in percentages*).

(Sea borne : exclusive of treasure and of imports on Government account).

	1909–14. *Average.*	1914–19. *Average.*	1930–31.	1931–32.	1932–33.
Cotton manufactures ...	36	35	15	15	20
Iron and Steel	7	6	7	5	4
Machinery	4	4	9	9	8
Sugar	9	10	7	5	3
Hardware	2	2	2	2	2
Mineral Oil	3	3	6	7	5
Silk	3	2	1	2	2
Other articles...	36	38	53	55	56

EXPORTS (*in percentages*).

(Sea borne : exclusive of treasure and of exports on Government account).

	1909–14. *Average.*	1914–19. *Average.*	1930–31.	1931–32.	1932–33.
Jute, raw and manufactures	19	25	20	21	24
Cotton, raw and manufactures	15	16	24	18	18
Food grains	21	17	14	13	12
Seeds	11	6	8	9	9
Tea	6	8	11	12	13
Hides and skins	7	8	2	2	2
Other articles...	21	20	21	25	22

II.—TRADE DISTRIBUTION:- PRINCIPAL COUNTRIES

TABLE SHOWING VARIATIONS IN THE SHARE OF THE PRINCIPAL COUNTRIES IN THE IMPORT AND EXPORT TRADE OF BRITISH INDIA DURING THE LAST THREE YEARS, AS COMPARED WITH AVERAGES OF THE PRE-WAR AND WAR PERIODS.

IMPORTS (*in percentages*).

(Sea borne: exclusive of treasure and of imports on Government account).

	1909–14. *Average.*	1914–19. *Average.*	1930–31.	1931–32.	1932–33.
United Kingdom	63	56	37	36	37
Other parts of the British Empire	7	9	9	9	8
United States of America ...	3	7	9	10	9
Japan	2	10	9	11	16
Java	6	8	6	4	3
Germany	6	1	7	8	8
Other Foreign Countries ...	13	9	23	22	19

NOTE.—Imports from Germany during the quinquennium 1914-19, consisted mostly of receipts in the early part of the official year 1914-15, and the residue of cargoes of prize vessels imported during the war period.

EXPORTS* (*in percentages*).

(Sea borne: exclusive of treasure and of exports on Government account).

	1909–14. *Average.*	1914–19. *Average.*	1930–31.	1931–32.	1932–33.
United Kingdom	25	31	21	28	28
Other parts of the British Empire	16	21	14	17	18
United States of America ...	8	12	12	9	7
Japan	8	11	10	9	10
France	7	4	5	5	5
Germany	10	1	9	6	6
Other Foreign Countries ...	26	20	29	26	26

NOTE.—Exports to Germany during the quinquennium, 1914-19, were confined to the early part of the official year 1914-15.

* Including re-exports.

COMMERCIAL SUMMARY

Area—

	Sq. miles.
British India	1,096,171
Native States	712,508
Total	1,808,679

Population Census of 1931—

British India	271,526,933
Native States	81,310,845
Total	352,837,778

Language for Commercial usage—English.

Monetary unit(s)—

3 pies = 1 pice.
4 pice = 1 anna.
16 annas = 1 rupee.
1 lakh = Rs. 1,00,000 (or £7,500 at 1s. 6d. to the rupee)
1 crore = 100 lakhs (or £750,000 at 1s. 6d. to the rupee)
} e.g., Rs. 1,45,67,200 = 1 crore, 45 lakhs, 67,200 rupees.

Rate of Exchange (pre-war and current average quotations)—

Pre-war	1s. 4d.
Current. June 30th, 1933	1s. 6d.

Index Numbers—July, 1914 = 100.

Wholesale prices, Bombay.	April, 1933 = 96.
Retail prices (food), Bombay	Twelve Monthly Average, 1932 = 104.
Cost of living (working class), Bombay	April, 1933 = 101.

Principal weights and measures (other than ordinary metric or British) with British equivalents.

Weights and measures in India vary not only from district to district but also for different commodities within the same district, and though the railways have given a lead to the adoption of a uniform system, the country is so vast that the differences are likely to persist for many years to come. The principal units in all the scales of weights are the maund, seer and the tola, and the standard weights for each of these are, respectively, 82.28 lbs., 2.057 lbs. and 180 grains troy. The tola is the same weight as the rupee. In addition to these weights, there is the viss of 3.60 lbs. or 140 tolas and the candy of 500 to 840 lbs. It is not necessary for the purposes of this volume to detail any variation of the weight of the maund, except those which enter into the export trade. It will be sufficient to say that in any particular city there are probably as many different maunds as there are articles to weigh. The only varieties which need be considered in connection with the foreign trade are the Bengal or railway maund already specified, the factory maund of 74 lbs. 10 ozs. 11 drs., the Bombay maund of 28 lbs. and the Madras maund of 25 lbs. In October, 1913, the Government of India appointed a Committee to inquire into the whole question, and their majority report, which was presented in the following year, recommended the extension of the railway system based on the 180 grains tola, while the minority report advocated the adoption of the metric system. The views of the Provincial Governments on these reports

were obtained and the Government of India in their Resolution dated the 3rd January, 1922, declared themselves in favour of the ultimate adoption in India, excluding Burma, of a uniform system of weights based on the scale now in use on the railways. It has been decided that no new measures prescribing all-India measures of weight or capacity should be introduced at present but that the Local Government should take such executive action as they can to educate public opinion in favour of the standard maund and seer.

In the table below an attempt has been made to present within a small compass the principal weights and measures employed in the Indian export trade.

Principal weights and measures in use in the export trade.

Name of Unit. General.	*British Imperial Value.*
Tola	180 grains troy.
Seer (Standard or Railway or Indian) ...	2.057 lbs.
Seer (Factory)	1 lb. 13.5 oz.
Viss	3.60 lbs.
Maund (Standard or 40 seers Railway or Indian)	82 lbs. 4 oz. 9 dr.
Maund (Factory)	74 lbs. 10 oz. 11 dr.

NOTE.—For local variations consult " Handbook of Commercial Information for India," by C. W. E. Cotton, C.I.E., I.C.S., 2nd Edition, 1924.

Total Imports—1st April, 1932 to 31st March, 1933.

	Rs.
Merchandise	1,32,58,29,635
Government Stores	2,43,32,879
Treasure	2,99,13,188
Total	1,38,00,75,702

Principal Imports—Cotton manufactures, machinery, iron and steel, sugar, oils, raw cotton.

	Rs.
Imports of merchandise from United Kingdom ...	48,77,16,240
,, ,, ,, Japan	20,50,17,602
,, ,, ,, U.S.A.	11,24,52,807
,, ,, ,, Germany	10,36,88,635

Total Exports.—(Indian merchandise). 1st April, 1932 to 31st March, 1933. Rs. 1,32,43,56,937.

Principal Exports—Cotton, jute and jute manufactures, grain, pulse, tea and seeds.

	Rs.
Exports of Indian merchandise to United Kingdom	37,55,39,420
,, ,, ,, U.S.A.	9,75,91,546
,, ,, ,, Japan	13,94,98,066
,, ,, ,, Germany... ...	7,99,65,846
,, ,, ,, France	7,34,98,496

Railway mileage.—31st March, 1932.

Railways owned by the State	45,486
Other railways	12,724
Total route mileage opened for traffic	58,210

REPORT on the CONDITIONS and PROSPECTS of BRITISH TRADE in INDIA, 1932—33

CHAPTER I

GENERAL REVIEW OF THE PERIOD

The year 1932/33 probably witnessed the nadir of India's economic history for many years to come. Once again, India's trade and economic life have been at the mercy of those devastating world-wide forces which have forced commodity prices to still lower depths, have restricted international exchange of goods to the barest necessities, and have reduced the purchasing power of the people until they have been forced to make heavy drafts upon their reserves of the precious metals.

The monsoon was a normal one for India as a whole and although rains were short in Bihar, the East United Provinces and the Madras Coast and excessive in the North-West Frontier Province and Sind, the total rainfall was only five per cent. in defect, so that, so far as climatic conditions were concerned, India might have been enjoying a year of normal prosperity. The Burma rice crop exceeded the abundant harvest of the previous year by nearly three per cent. and the prospects of the current crop are good. The wheat crop was a little above the average of the previous five years. Sugar cane provided a growing business for the cultivator in view of the great extension of sugar factories, which enjoyed a record crush. The figures of tea production showed a considerable advance. The jute crop was short, but, in view of the lack of demand from the mills, this was all to the good. The cotton crop also was short, but quite adequate for the requirements of the mill industry and the export markets.

The disastrous fall in prices, to which I referred at length in my last report, continued unchecked. Although the suspension of the gold standard in September, 1931, created a temporary rise expressed in sterling, the downward movement of gold prices soon brought about a further falling tendency in rupee quotations based on sterling and the year ended with rates at record low levels. The following table gives the index numbers of the principal export commodities as calculated by the Director-General of Commercial Intelligence and Statistics:—

(Basis 100 end of July, 1914).

	March 1930.	March 1931.	Sept. 1931.	March 1932.	Sept. 1932.	March 1933.
Cereals	103	85	73	70	68	61
Pulses	140	82	91	86	93	81
Tea	121	114	63	60	58	70
Oilseeds	142	90	78	74	77	69
Jute, Raw	72	45	51	49	50	38
Jute, manufactured	89	80	69	76	82	68
Cotton, raw ...	107	93	74	89	95	79
Hides and skins ...	100	80	51	54	53	54

The increase in the index for tea is the result of the international agreement for restriction which was put into operation shortly after the close of the year.

To complete the picture, however, it is desirable to show the fluctuations in the index numbers for imported articles, which are given in the next statement, compiled by the Director-General of Commercial Intelligence and Statistics :—

	Exported articles (28 quotations)	Imported articles (11 quotations)
1929—September	217	167
1930—December	138	141
1931—December	123	151
1932—January	125	149
February	124	150
March...	124	154
April	119	147
May	117	146
June	114	141
July	114	141
August	119	141
September	125	144
October	124	143
November	122	143
December	120	135
Fall in December, 1931, as compared with September, 1929	43 per cent.	10 per cent.
Fall in September, 1932, as compared with September, 1929	42 per cent.	14 per cent.
Fall in December, 1932, as compared with September, 1929	45 per cent.	19 per cent.
Fall in December, 1932, as compared with December, 1931	2.4 per cent.	10.6 per cent.

It will be remarked that, except in the case of the last twelve months, the decline in the export price level has been much greater than that in the import price level. The reversal of the process

during the past twelve months is due to very heavy imports of Japanese goods at phenomenally low prices. This has brought about a slight improvement from India's point of view in the correction of the disparity between the price levels for the main articles which she has to sell and those which she has to buy. Thus :—

	Recorded values (1)			Index Nos. of Declared values (1913-14=100) (2)			Value of trade eliminating changes in price level (calculated on the basis of declared values in 1913-14) (3)		
	1929	1931 (Crores.)	1932	1929	1931	1932	1929	1931 (Crores.)	1932
	Rs.	Rs.	Rs.				Rs.	Rs.	R.s
Imports ...	248.6	135.7	133.7	113	87	84	220	156	159
Exports ...	321.5	164.6	134.8	124	77	79	259	214	171

The average index figure for the main export articles, taking 1913-14 prices as 100, was 77 for 1931 and 79 for 1932. On the other hand, the index figure for the main articles of import averaged 87 in 1931 and 84 in 1932. To that extent, the Indian cultivator was better off in the year under review than he was in 1931, but when one takes into account the fact that no less than 22½ per cent. of his income is spent in fixed charges such as rent, rates of all kinds, etc., the prices which he has received for his crops allow less than nothing for the purchase of even the barest necessities of existence other than food, which he usually grows for his own consumption.

A noteworthy feature of the year was the subsidence of the political agitation and boycott movement which, since 1930, has had such a restrictive effect on both overseas and domestic trade. The country was almost free from political agitation and traders were able to follow their pursuits without interference.

During the year ended March 31st, 1933, the value of India's imports increased, as compared with the corresponding period of 1932, by Rs.6 crores or 5 per cent. and amounted to Rs.133 crores. The total exports, including re-exports, fell by Rs.25 crores or 15 per cent. to Rs.136 crores. Exports of Indian merchandise showed a decrease of Rs.23 crores or 15 per cent.; re-exports also declined by Rs.1.44 crores or 31 per cent. The grand total of imports, exports and re-exports amounted to Rs.268 crores as against Rs.287 crores, a decline of Rs.19 crores or 7 per cent.

India's Export Trade 1932-33.—The further heavy fall of Rs.25 crores is attributable partly to the fall in prices already referred to, but also to a further fall in the quantities exported,

particularly of raw cotton, which has been only slightly offset by an increased consumption by Indian mills. Detailed statistics for the fiscal year 1932/33 are not yet available, but the following table, included in the budget speech of the Hon. The Finance Member, gives comparisons between the results for the calendar year 1932 and the average for the ten years from 1920 to 1930 :—

	Quantities.			Values.		
	Average of 10 years ending 1930	1932	Per-centage	Average of 10 years ending 1930	1932	Per-centage
				Rs. (lakhs)	Rs. (lakhs)	
1. Cotton, raw. Tons (1,000)	616	286	46	69,09	16,03	23
2. Hides & Skins (Raw & Tanned) Tons (1,000)	70	42	60	13,95	7,76	56
3. Jute, raw & manufactured. Tons (1,000)	1,499	1,176	78	72,84	31,49	43
4. Tea. lbs. (millions)	346	368	106	27,06	16,89	62
5. Groundnuts*Tons(1,000)	448	472	105	11,21	8,11	72
6. Rice (not in the husk). Tons (1,000)	2,067	2,076	100	36,98	17,16	46

* The trade in groundnuts has been expanding rapidly during the period.

To quote Sir George Schuster :—

> " This table shows how terribly the value of India's exports has declined compared with what had come to be accepted as a normal level in the post-war period. Even so, the figures as regards quantities exported—with the sole exception of cotton—have kept up in a manner which seems to justify the view that India has not even yet suffered quite so badly as most of the other countries producing primary agricultural products. Raw cotton is by far the worst sufferer and during 1932 the exports had fallen in quantity by more than half, a fall which as a result of the lower prices is increased to one of more than three-quarters in value as compared with the average for the past ten years. For jute the fall in volume was about a quarter while the fall in value is more than half. In the case of tea, although the volume of export was more than maintained, the value was reduced by more than one-third. In the case of rice, the volume of export was maintained but the value fell by over 50 per cent. Groundnuts on the other hand show an increase in quantity but a decline in value."

Exports to the United Kingdom fell from Rs.43 to Rs.37½ crores, those to the United States from Rs.14 to Rs.9¾ crores, Germany from Rs.10¼ to Rs.8 crores, France from Rs.7½ to Rs.7¼ crores and China from Rs.7¾ to Rs.3½ crores. Shipments to Japan, however, remained constant at just under Rs.14 crores.

Present Position and Prospects of Indian Crops and Industries.—The present position (July, 1933) and future outlook for some of the principal Indian crops and industries are briefly summarised in the following notes kindly supplied by the Imperial Bank of India :—

Rice (Burma).—Paddy prices at the end of March this year touched their lowest level at Rs.55/56 per 100 baskets; by the middle of May they had recovered to their present level of Rs.66/67, at which they have since remained practically stationary. At these prices cultivators are able to show little, if any, profit and have consequently been holding up supplies in the hope of an improvement in rates. (The present rates compare with Rs.89/90 at this time last year). In spite of small arrivals, prices are kept down by the absence of demand in the Rice market, where the present price of " Big Mill Specials " at Rs.165/-, though an improvement on the lowest touched at the end of March (Rs.142/8), compares with Rs.212/8 at this time last year. No improvement can be looked for until further demand develops from outside markets, and this does not appear likely in the near future, particularly in view of the surplus stocks possessed by Japan. The assets of the Chettiars, who finance cultivation, are practically all locked up in advances in paddy lands and unless there is a very substantial advance in paddy prices next season it is difficult to see how cultivation can continue to be carried on.

Timber (Burma).—The market is stagnant, stocks are accumulating rapidly and demand decreasing steadily. Prospects are gloomy. Government are assisting to some extent by reducing royalties and making concessions in the matter of classification.

Tea (Assam, Bengal).—The inauguration of the restriction scheme has introduced considerably brighter prospects for the tea industry, and the results of the first few sales of the season have been very satisfactory. Teas for export have been realising from As.7/6 to As.9/- per lb. as compared with As.5/6 to As.6/5 at the corresponding sales last year, and prospects are considered good.

Wheat (Punjab, United Provinces).—This is practically the only agricultural product of which prices show an improvement on those of the previous year. Prices at present have a downward tendency with the increasing arrivals of the new crop, but the rate at Lyallpur is still Rs.2/11/- per maund as compared with Rs.2/2/- at this time last year. The crop forecast estimated an increase in yield of only 2 per cent. and as a result of unfavourable weather this is likely to be reduced, so that prospects of prices being fairly well maintained are considered good. There is a better all-round feeling in Northern India and more inclination to store grain for a rise and to trade generally.

Sugar (United Provinces, Bihar and Orissa).—The season which has just concluded has been a most successful one, and most factories have had a record crush and must have made good profits. The success of existing factories has induced a scramble to put up more, and fears are now being expressed lest this should result in over-production or the concentration of too many factories in certain areas. If this does not result, prospects may be still considered good.

Jute.—The recent sharp rise in the price of Gunnies and Hessians was produced solely by the rise in commodity prices in America, and rates have already re-acted. " Firsts " are now quoted at Rs.29/12 as against Rs.35/- reached at the height of the rise, though this still compares favourably with Rs.24/-, the price in March. Prospects for the mill industry, and hence for the cultivators, depend on the future demand from America. At present prices cultivation shows a fair profit.

Cotton (Punjab, Bombay).—The markets at present are entirely dominated by the situation in America and by the threatened Japanese boycott. While it is difficult to obtain clear information about Japanese decisions, it is understood that, taking into consideration the existing commitments of shippers to Japan, and also allowing holders of consignments in Japan to sell out their consignments and replace them by fresh shipments from India, the Japanese spinners have decided to admit into their country 237,000 bales. All further purchases from India have been stopped. The result has been that consignments in Japan have sold at fully Rs.10 higher than their replacing cost in Bombay, and shippers have been only too anxious to ship their full quota to Japan. This explains the recent enquiry for spot cotton in that market and also the widening of the difference between the Indian and American price-level. In fact the hiatus between the price of Indian cotton in Japan and in India, after taking into account the freight, etc., has been just equal to the widening of the difference between the Indian and American price-level, and shows to what extent Indian cotton has been hit by the Japanese boycott.

Cotton Mills (Cawnpore, Bombay).—The position in this industry is dominated by the influx of cheap Japanese goods, and it is by no means certain that the recently imposed duty will be sufficient to enable Indian Mills to meet the competition from Japan. Mills continue to carry very large stocks, and there is at present no sign of any improvement in demand from consuming centres. In Bombay many mills remained closed down.

Coconut Products (Madras).—Demand for coir yarn continues fairly steady, but the market for copra and coconut oil remains very weak and prices are declining.

Groundnuts (Madras).—Prices are still low but there are signs of an improving export demand, and a rise in prices is anticipated.

Skins and Hides (Madras).—Stocks are high and business is at present very restricted, holders being unwilling to sell at the present low prices."

India's Import Trade, 1932-33.—In striking contrast with the further contraction in the export trade, the value of the imports into India during the year rose by Rs.6 crores or 5 per cent. to a total of Rs. 133 crores. This is largely attributable to an increased import of cotton piece goods of Rs.6½ crores (notwithstanding an increase of over 180 million yards in Indian mill production) and to larger arrivals of raw cotton amounting to Rs. 21 lakhs while others items remained steady. The most important reductions took place in the case of sugar (nearly Rs.2 crores), motor vehicles (Rs.44 lakhs) and machinery (Rs.38 lakhs). Detailed observations under the heading of each item will be found in Chapter V. We are here concerned with the broad movements and the first question which arises is:—How has it been possible for India, which normally requires a favourable balance of trade of at least Rs.50 crores, to expand her imports during a year of the most intense depression with crushing import duties and with a favourable balance of trade in merchandise of only Rs.3 crores, a drop of no less than 90 per cent. from the figure for 1931/32 and the lowest favourable trade balance recorded since 1922/23? The answer is that India has drawn upon her reserves of gold to the extent of Rs.65½ crores (nearly £50 million), which have been

exported thereby enabling her to maintain her purchasing power and meet her external commitments in addition. The Finance Member summarised the state of affairs very clearly in his budget speech when he said :—

" The broad fact is that India could not with exports at their present level support the present volume of imports simultaneously with meeting her external obligations unless they were supplemented by gold exports. What is happening now may be put in two different ways, either that part of India's consumable imports are being paid for in gold, or that gold sales are providing the means to meet external obligations and to accumulate reserves in external currencies. The truth really is that what is happening is a combination of the two processes, for it must be remembered that so far as concerns the individuals who make up the mass of producers of goods for export and consumers of imported goods, they have to pay for the latter with customs duties added, and as customs duties on the 112 crores worth of goods imported for the ten months of the current year amount to 38 crores, one may say that the exports to the value of 110 crores are being supplemented by gold sales in order to pay for goods at the imported value of 150 crores, so that 40 crores of the gold proceeds have been used to pay for consumable goods. To this extent therefore it may be said that India is helping herself to tide over a period of unexampled depression by drawing on her reserves of gold, and thereby avoiding reducing her consumption to the desperately low level which would otherwise be necessary.

The worst feature of the present world situation is that practically every nation to-day in order to preserve its balance of international payments has been forced to put artificial restrictions on its imports by way of high duties and exchange restrictions. This is checking the flow of international trade, so that its channels are becoming completely dry, and is the main evil from which the world to-day is suffering. We ourselves by increasing our own import duties have done something to add to the evil, but if the flow of imports into India had not been helped by the exports of gold the case would have been very much worse. India in fact has been able to release into the world a commodity for which alone there is an undiminished market and the possession of which, if it is used as a basis for currency, does not diminish but rather increases the purchasing power of the countries which absorb it. By doing so India has been enabled to take more imports and thereby in this second way also to increase the purchasing power of her own potential customers. This last point must always be borne in mind, for we cannot restrict our own imports without weakening the market for our exports of merchandise."

In Appendix I, page 225 will be found a statement made by Sir George Schuster at the Ottawa Conference in July, 1932, which is one of the most lucid expositions ever published of India's present economic position. I commend it to the attention of all students of Indian economics.

A further important factor has been the influx of enormous quantities of Japanese textiles and other goods, which, largely due to the depreciation of the yen exchange, have been sold at prices sufficiently low to stimulate the purchases, made possible by the increase in the general purchasing power of the country brought about by the sales of gold. Imports from Japan advanced by more than Rs.7 crores in value, of which Rs.$3\frac{3}{4}$ crores represented increased shipments of cotton textiles. The fall during the year of 10.6 per cent. in the price index of imported articles, to which I have already referred, is largely due to the influence of imports from Japan.

The almost complete cessation of the boycott of United Kingdom goods and the gradual subsidence of the Congress agitation, which was responsible for such a serious dislocation of trading activities in the years 1930 and 1931, have given an added stimulus to the buying movement already recorded and have put new heart into dealers in United Kingdom goods. These influences in particular have had a wholesome effect upon imports from the United Kingdom which rose by nearly Rs.4 crores in value. The movement in favour of United Kingdom products was strengthened towards the end of the year by the ratification of the Ottawa Trade Agreement and the coming into force, on January 1st, 1933, of the preferential duties on certain United Kingdom goods. It is still too soon to assess with any precision the probable effects of these preferences, but I would refer my readers to Chapter II where they will find an analysis of the agreement from the standpoint of the United Kingdom exporter.

Remarkable Staying Power of the Indian Consumer.—In my last report for 1930/31, I commented at length upon the distressing position of the agricultural population, who, after realising their crops at the phenomenally low world prices of primary products, and after meeting their heavy fixed charges for rent, water rates, interest on money borrowed from the " Bania," etc., found themselves with almost nothing to expend upon even the most necessary items of imported goods. I showed how the Indian ryot, in the first place, economised as far as possible, e.g., by mending his torn dhootie and allowing his youngest children to wear the minimum of clothing; secondly, how he confined his purchases to the cheaper forms of country-made articles and substituted handloom or Indian mill goods for the finer Lancashire product and—where imported goods only were available for his needs—how he substituted the cheaper Japanese cloth, Continental metals and hardware, and Russian kerosene for the higher-priced goods of British origin. Since that report was written, the suspension by the United Kingdom of the gold standard in September, 1931, created a material rise in the price of gold expressed in terms of rupees linked with sterling and has resulted in a total export of no less than Rs.150 crores of gold bullion and coin, a large proportion of which represents the savings of the people, who have been tempted to realise their hoards and ornaments, first, in order to secure a good profit on them and, second, to meet current expenditure. This substitution of barren gold and ornaments for tenderable currency has enabled the consumer, in spite of diminished purchasing power, to maintain the consumption of certain standard necessities to a marked degree.

The Hon Sir George Schuster in his budget speech, quoted from the following table which had been specially prepared and which analyses the results as regards certain main articles of consumption classified under three heads—luxury articles, requirements of industry, and necessities of the masses. Cotton piece

goods, kerosene and salt have been taken as necessities for the masses; machinery, lubricating oil, cement and chemicals as industrial requirements; and tobacco, liquors and motor cars as luxuries. The figures indicate imports except in the case of articles marked with an asterisk, where the quantities given include figures of production so far as available. In the case of salt, production figures relate to British India excluding Aden. The value figures of production have been estimated on the basis of the average declared value for imports:—

	Quantities.			Values (cum duty).		
	Average of 10 years ending 1930	1932	Per-centage	Average of 10 years ending 1930	1932	Per-centage
				Rs. (lakhs)	Rs. (lakhs)	
(A) LUXURY ARTICLES.						
1. Motor cars. No. (1,000)	11.4	5.3	46	3,50	1,51	43
2. Tobacco. lb. (1,000)	8,396	5,104	61	4,03	2,06	51
3. Liquors. Gal. (1,000)	5,915	5,429	92	5,93	4,30	73
Total of (A) ...	—	—	—	13,46	7,87	58
(B) REQUIREMENTS OF INDUSTRY.						
4. Machinery and mill-work	—	—	—	19,62	12,04	61
5. Lubricating Oil. Gal. (Million)	22.3	14.3	65	2,28	1,57	69
6. Cement* Ton (1,000)	492	551	112	3,73	2,86	77
7. Chemicals	—	—	—	2,64	3,34	126
Total of (B) ...	—	—	—	28,27	19,81	70
(C) NECESSITIES FOR THE MASSES.						
8. (a) Cotton piecegoods (Mill-made)* Yds. (millions)	3,677	4,327	118	131,72	99,40	76
(b) Cotton piecegoods. (hand-loom) Do.	1,246	1,500	120	44,85	34,46	77
Total Do.	4,923	5,827	118	176,57	133,86	76
9. Kerosene oil* Gal. (millions)	232	235	101	17,73	16,27	92
10. Salt* Ton (1,000)	1,965	2,106	107	12,74	11,84	93
Total of (C) ...	—	—	—	207,04	161,97	78
(D) ARTICLES OF DOUBTFUL CLASSIFICATION.						
11. Artificial silk piecegoods. Yds. (Million)	27.8	116.2	418	2,24	4,38	196
12. Sugar Ton (1,000)	781	462	59	23,69	12,75	54

To quote the comments of the Finance Member :—

" As regards the three articles which I have taken as necessities for the masses, the quantities of consumption are in all cases higher for 1932 than for the ten year average 1920-30. Piecegoods with a total of 5,827 million yards as compared with 4,923 million yards for the earlier period are 18 per cent. up. Kerosene oil with a total of 235 million gallons as compared with 232 million gallons for the earlier period is 1 per cent. up. Salt with a consumption of 2,106,000 tons as compared with 1,965,000 tons for the earlier period is 7 per cent. up.

Turning to values, there is, of course, a fall in these for 1932, owing to the lower prices prevailing in spite of the higher duties. The total value of all these three commodities consumed in 1932 was 162 crores representing 78 per cent. of the average for the ten year period, which was 207 crores.

In the case of the articles required by Industry, it is of course impossible to compare quantities for such miscellaneous heads as machinery and millwork, or chemicals. The Table shows a fall in value for machinery and millwork of about 40 per cent. which, allowing for the fall in prices, must indicate a very much smaller fall in quantities; a fall both in quantity and value of lubricating oil of between 30 and 40 per cent.; an increase in quantities of cement accompanied by a fall in values; and an increase of 26 per cent. in the value of chemicals. The total value of all these articles for 1932 is 70 per cent. of the value for the ten year period.

Turning to luxuries, there is a very heavy fall in motor-cars, with a figure of 5,300 cars for 1932 as compared with an annual average of 11,400 in the earlier period. Quantities represent 46 per cent. only, and values 43 per cent. only of the earlier period. I would note here that the value per car has fallen in spite of the increased duties. Tobacco consumption for 1932 represents 61 per cent. in quantity and 51 per cent. in value of the earlier period, and liquors 92 per cent. and 73 per cent. respectively. Altogether the total value of the three luxury articles consumed in 1932 represents 58 per cent. of the average value for the earlier period.

I think it is fair to say that these figures indicate that certain luxury and quasi-luxury articles show very heavy decreases in consumption; that industry has stood up fairly well, and that in certain fields—particularly the sugar industry and the textile industry—expansion in India is still progressing in spite of the world slump; and lastly that as regards the necessities of the masses the consumption figures are being maintained in a most remarkable way in spite of loss of purchasing power, while in spite of increased excise and import duties consumers have had a substantial benefit from the fall in prices.

I must add in conclusion one obvious but most important point, namely, that the really striking falling-off in India's normal consumption has been in the case of precious metals. As is well known, India imported gold and silver of the average annual value of about 40 crores in the years from 1920-30. The power to cut out this enormous margin has been a tremendous factor—equal in importance almost to the actual sale of gold—in enabling India to go through this period of depression without being forced to cut down her normal absorption of those commodities which are needed for daily consumption."

The Outlook in the Import Trade.—The outlook in the import trade at the present time (July, 1933) is more hopeful than it has been at any time during the past three years. We have already seen, in considering the position of India's staple crops, that the prospects with regard to jute, tea, wheat, sugar, groundnuts, linseed and other oilseeds, etc., show a marked improvement, but still depend upon a revival in the general economic situation

and a world-wide rise in prices. The monsoon forecast issued in June estimates an 80 per cent. chance of the rainfall being above normal in the Peninsula, above 90 per cent. of the normal in North-West India and above 95 per cent. of the normal in North-East India, thus giving good grounds for expectation that the rains will be abundant. The political sky is clearer than it has been for many years. The boycott campaign is now a negligible factor and racial bitterness has very largely subsided. Railway receipts and returns of wagon loadings are markedly in excess of the figures for 1932. The Banks report an increasing demand for money at up-country branches, particularly in Northern India, which is another sure sign that goods are beginning to move. Shipping agents and freight brokers confirm that the demand for export tonnage has improved and freight bookings have increased materially, both in the overseas export trade and in the coastal traffic. All the indices point to a state of readiness throughout India to take immediate advantage of any world-wide economic improvement and rise in prices. If only satisfactory arrangements are concluded between the Powers in respect of such important questions as war debts and disarmament, the confidence thereby created would go a long way towards creating a revival in this market, which is ready and waiting for a forward movement.

I have stressed the internal position as regards crop and export prospects because it is obvious that there can be no lasting improvement in the import trade until India's favourable balance of trade in merchandise is restored to a figure of at least Rs.50 crores, which she requires to meet her essential obligations in London. The shipments of gold are being maintained during the present year in a remarkable way and will, as in 1932, help to balance the international account and, at the same time, release purchasing power to be spent on imported goods. This, however, is an abnormal state of affairs and until India can obtain a favourable balance of Rs.50 crores *in merchandise* she cannot be considered to be on a sound foundation. The encouraging factors I have already referred to lead one to hope that the long-awaited export revival is at hand, in which case a material rise in the volume of imports is bound to follow although the progress will probably be slow.

There are many difficulties in the path of a really considerable increase in the volume of imports. The heavy emergency import duties are having a severely restrictive effect and have, in many cases, reached the point of diminishing returns. Moreover, they are having a protective effect which was not intended and are stimulating a large number of nascent local industries which, presumably, will strongly oppose their removal when the time comes for the Finance Member to redeem his pledge that the surtaxes shall be removed so soon as the financial situation permits. The effects of the protective tariff are rapidly limiting the Indian

market, particularly in times of depression, as an outlet for overseas exporters. This is particularly noticeable in the case of cotton textiles, iron and steel, tinplates, paper and cement. In spite of the intensity of the depression, which has reduced imports from a total of Rs.251½ crores in 1928/29 to Rs. 132½ crores in 1932/33, the Indian cotton mills increased their production of cloth during the four years from 1,893 million yards to 3,170 million yards; the Tata Iron and Steel Co's production of finished steel rose from 362,025 tons in 1930 to 426,968 tons in 1932; the Tinplate Co. of India, Ltd., are, in 1933, producing tinplates at the rate of over 3,000 tons per month; the output of paper of all kinds for the last nine months of 1932 was 30,000 tons and the production of Indian cement for the same period was 433,234 tons. Although the preferential duties accorded to imports from the United Kingdom by the Ottawa Trade Agreement will give a valuable fillip to United Kingdom products vis-à-vis other competing foreign goods, the competition from Indian industries, stimulated by the protective tariff, the " swadeshi " movement, and the preference accorded by Indian Government departments when making purchases of stores, will become increasingly severe.

So far as the trade in cotton textiles is concerned, readers interested should refer to the forecast which is made on pages 140-141, and to the detailed analysis of the trade on pages 119-140. While there is a decidedly more hopeful tone in the market, based upon the healthy stock position of Lancashire goods, the steps which have been taken by increased duties to offset the depreciation of the yen and the signs of improvement in the economic position of the country, the present uncertainty with regard to such vital questions as the degree of protection to be afforded to Indian Mills by the forthcoming Cotton Industry Protection Bill, the measure of differentiation or of Imperial Preference to be accorded to the United Kingdom product in the same bill, and the fiscal results of the impending negotiations with the Japanese Government renders any immediate heavy buying movement of Lancashire goods almost impossible. The marked improvement in general conditions has not yet been reflected by increased enquiry for piece goods from up-country merchants, who are still nervous in the present unsettled state of the economic world and are likely to defer their purchases until the last possible moment. There is still a wide disparity between bazaar rates and Manchester quotations, but it is probable that there may be a distinct revival in September and October when the future may be expected to be less obscure. During the year 1932/33 the United Kingdom increased its share of the Indian piecegoods market by 210 million yards valued at over Rs.4 crores. I expect this movement to continue.

The valuable trade in machinery and plant and general engineering supplies is still restricted by the curtailment of

Government expenditure on capital works such as railway construction and renewals, irrigation projects and public works developments, e.g., roads, buildings, bridges, etc. The railway capital programme is outlined on pages 47-49 and provides little comfort for United Kingdom contractors. In view, however, of the current low rates of interest of all Government loans and the favourable prices at which plant and material may now be obtained, the situation is being re-examined by the Departments concerned and there is a disposition on the part of the Finance Department to consider some expansion of programmes. Should Indian general revenues improve and the present indications of a trade revival be confirmed towards the end of 1933, it is probable that the Government of India may sanction increased expenditure on both railways and roads. Meanwhile, public utility undertakings are more disposed to renew and extend their plants in order to be prepared for the trade revival. The boom in the sugar industry is providing valuable orders for complete sugar factories and extensions to existing plants. It is expected that if the present improvement in the jute industry expands, the mills will require to make renewals of plant and equipment, which have been allowed to stand over during the years of depression. Now that Japanese competition is being checked to some extent, the cotton mills may reasonably anticipate a period of more active and lucrative trade which is likely to result in extensions and renewals of machinery. The recent rise in the price of gold, silver and non-ferrous metals is already bringing greater activity to the gold mines of Mysore and the lead, silver and copper mines of Burma and India. Although the recovery, at first, is likely to be slow, I regard the prospects for the future of United Kingdom machinery in India to be promising.

In the iron and steel trade, competition from the Tata Iron and Steel Works is likely to become more severe. The Company is now in a position to roll most of the sections in regular demand and is supplying for local fabrication the bulk of the steel required in large bridge contracts. The output of galvanised sheets has more than doubled during the last three years and the capacity of the sheet mills is being rapidly extended until it is expected to attain a total of 100,000 tons per annum. Although, as I have frequently maintained, the Indian market is sufficiently important to provide a valuable field for the products of both the Indian and the United Kingdom works, the tendency, during times of depression such as the present, is for the local industry to improve its position at the expense of the imports. The agreement regarding steel sheets which was recently made between the United Kingdom producers and the Tata Company, and which was embodied in the Ottawa Trade Agreement, will, it is hoped, safeguard this valuable market for the products of the two parties against foreign competition and augurs well for closer co-operation in future between the United Kingdom and Indian steel industries—a policy

which would be of mutual advantage and would help to solve most of the problems of excessive competition and undue price-cutting.

All imported goods are likely to benefit from the decided improvement in the economic and political situations. On every side one hears of more enquiry and an increased volume of orders. The crushing burden of the import duties still bears heavily in these times of restricted purchasing power, but it is hoped that the Finance Member will redeem his pledge to remove the emergency surtaxes so soon as the financial position of the Government of India permits. All the indications point to a material expansion of the import trade during the coming year. It will probably be gradual, as there are still many difficulties to be overcome, but it should be all the more permanent on that account. There are grounds for hope that the Indian consumer, when once again he has the capacity and opportunity to buy what he likes, will gladly revert to many overseas sources of supply, which, on grounds of economy, he has had to discard during the recent depression.

General Position of British Trade in India.—The following table, compiled by the Director of Statistics, clearly shows the percentage shares of the United Kingdom, the British Empire as a whole, and the principal foreign countries in the trade of India during the fiscal year 1932/33 as compared with the previous year and the average of the last five complete pre-war years, 1909/10 to 1913/14:—

[TABLE]

	Imports			Exports, including re-exports			Total Trade		
	Pre-war average	1931-32	1932-33	Pre-war average	1931-32	1932-33	Pre-war average	1931-32	1932-33
	Share per cent.	Share per cent.	Share per cent.	Share per cent.	Share per cent.	Share per cent.	Share per cent.	Share per cent.	Share per cent.
United Kingdom	63	36	37	25	28	28	40	31	32
Other British Countries	7	9	8	16	17	18	12	14	13
TOTAL BRITISH EMPIRE	70	45	45	41	45	46	52	45	45
TOTAL FOREIGN COUNTRIES	30	55	55	59	55	54	48	55	55
Principal Countries.									
BRITISH EMPIRE—									
United Kingdom	62.8	35.5	36.8	25.1	28.2	28.4	40.0	31.4	32.2
Ceylon	0.5	1.1	1.3	3.7	5.0	5.0	2.4	3.3	3.2
Straits Settlements	2.1	2.3	2.1	3.4	3.0	2.7	2.9	2.7	2.4
Australia	0.7	1.3	0.8	1.4	1.8	2.9	1.1	1.6	1.8
Hongkong	0.7	0.4	0.4	4.1	1.2	1.1	2.7	0.8	0.7
Other British Countries	2.9	4.2	3.4	3.4	5.3	5.7	3.2	4.9	5.0
TOTAL BRITISH EMPIRE	69.7	44.8	44.8	41.1	44.5	45.8	52.3	44.7	45.3
Foreign Countries.									
Japan	2.5	10.6	15.5	7.5	8.7	10.4	5.5	9.5	12.9
United States	3.1	10.2	8.5	7.5	8.9	7.4	5.8	9.4	7.9
Java	6.4	3.8	2.8	1.3	1.1	0.5	3.3	2.4	1.7
France	1.5	1.7	1.5	6.6	4.8	5.5	4.6	3.4	3.5
Italy	1.0	2.8	3.0	3.2	3.4	3.5	2.3	3.2	3.2
China (exclusive of Hongkong and Macao) ...	1.1	2.2	2.2	3.9	4.9	2.7	2.8	3.7	2.4
Belgium	1.9	2.4	2.6	5.3	2.8	3.0	3.9	2.6	2.8
Germany	6.4	8.1	7.8	9.8	6.3	5.9	8.5	7.1	6.9
Other Foreign Countries	6.4	13.4	11.3	13.8	14.6	15.3	11.0	14.0	13.4
TOTAL FOREIGN COUNTRIES	30.3	55.2	55.2	58.9	55.5	54.2	47.7	55.3	54.7
TOTAL	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

It is most satisfactory to note that the continuous decline in the share of the United Kingdom in the import trade has at last been checked. Thanks to increased shipments of cotton piece-goods, United Kingdom shippers secured approximately two-thirds of the increase in the import trade, their share advancing from Rs.44.81 crores to Rs. 48.77 crores and, in percentage, from 35.5 to 36.8. The improvement may be attributed to a combination of all the factors which have already been discussed. The effects of the preferential duties secured by the Ottawa Trade Agreement were not apparent during the year under review, but will, it is confidently hoped, prove to be of material value in future years. After having had to call attention in these reports during the last fifteen years to the steady decline in the United Kingdom percentage figure from its post-war peak of 61 in 1920/21 (a quite exceptional year) to its lowest point of 35.4 in 1931/32, it is with feelings of deep satisfaction that I am able to record the view that the lowest level of United Kingdom—Indian trading relations has definitely been passed and that future years will probably show a slow but steady movement in the upward direction.

In the appendices on pages 229 *et seq.* will be found a series of statistical tables, compiled by the Director-General of Commercial Intelligence and Statistics, which are designed to show the shares of all the leading countries in the trade of India, and, in addition, to provide an analysis of the trade in particular commodities so as to reveal the shares of the principal countries interested in each. Appendix II presents the total overseas trade of India in private merchandise in such a way as to indicate India's trade balances with the principal overseas countries. It will be noted that, before 1932/33, India's exports to usually exceeded her imports from all countries except in the case of the United Kingdom. The serious reduction in the imports from the United Kingdom in 1930/31 and 1931/32, however, brought about the remarkable position that, in the latter year, the export and import trade with the United Kingdom exactly balanced at Rs.45 crores each way. During 1932/33, however, we again have an excess import figure of Rs.11 crores. It is also encouraging to note that the percentage figure of the United Kingdom in India's export trade, which stood at 25 in pre-war years, has risen to 28 in the year under review. When the effects of the valuable preferences accorded to Indian products such as tea, linseed, rice, jute manufactures, pig iron and semi-manufactured steel are felt in a normal year, it may be presumed that the United Kingdom market will be a still more valuable outlet for India's exportable surplus and that the percentage will probably advance still further. This will be a development of the greatest importance in binding the economic interests of the two countries still closer. It has always been a great potential source of weakness that the United Kingdom should normally take from India a much less value of goods than the value of the merchandise which she normally exports to India.

Appendix III shows the position, both before the war and during the last two years, of the principal suppliers in some of the most important items of the import trade. It may be summarised in the following statement of the present percentages :—

Article	United Kingdom	U.S.A.	Germany	Japan	Belgium	Italy
Cotton manufactures	53.0	1.3	.3	37.9	.1	.9
Iron and steel ...	51.1	1.2	8.6	2.6	23.2	—
Machinery ...	74.1	7.7	9.3	.4	3.7	—
Hardware	30.6	5.6	36.1	10.1	1.1	—
Motor Vehicles ...	47.6	36.5	3.0	.2	.3	3.2
Instruments and appliances ...	50.5	13.9	16.9	5.9	1.6	1.9
Chemicals	51.6	5.4	14.9	4.9	—	5.6
Liquors	62.1	6.9	7.6	—	—	—
Paper	27.8	2.8	10.5	—	—	—

In Appendix IV, tables A-G, will be found statements showing the values of the principal articles imported from the United Kingdom, Japan, the United States, Belgium, Germany, Italy and Soviet Russia over a series of years including the pre-war period. These show the nature of the competition which is being encountered and its varying intensity in the post-war period.

Foreign Competition.—The following table shows the aggregate imports and the percentage of the total trade obtained by our leading competitors. The only country to show both an actual and relative decline was the United States; this decline was due to the exchange disadvantage consequent upon the depreciation of sterling.

	Values of Imports		Share of Total Imports	
	1931/32	1932/33	1931/32	1932/33
	Rs. (lakhs)	Rs. (lakhs)	Per cent.	Per cent.
Japan	13,34	20,50	10.6	15.5
U.S.A.	12,84	11,24	10.2	8.5
Germany	10,20	10,37	8.1	7.8
Belgium	3,02	3,42	2.4	2.6
Italy	3,59	3,95	2.8	3.0

Japanese Competition.—The remarkable advance in Japanese shipments to India by no less than 50 per cent. has been the outstanding feature of the year. A study of the values of the principal articles imported from Japan, which are given in Appendix IV,

page 234, discloses the fact that 65 per cent. of Japan's shipments represent cotton and artificial silk textiles and a further 10 per cent. represent pure silk manufactures. Three-quarters of the whole trade is, therefore, within the textile group. Other items, which have developed to a marked extent in recent years are glassware, yellow metal and brass sheets, boots and shoes, earthenware and crockery, hardware, haberdashery, apparel, miscellaneous instruments and apparatus, toys, chemicals, paper, umbrella fittings, woollen manufactures, rubber manufactures and cement. Details with regard to each competing item will be found in Chapter V. The phenomenally low prices which Japanese exporters were able to quote, on account partly of the depreciation of the yen but also as a result of low rates of wages combined with a most efficient industrial organisation, were at a sufficiently low level to attract the increased purchasing power in India which resulted from the realisation of the consumers' reserves of gold and jewellery. Japanese shipments of textiles reached their high watermark in the summer months of 1932 when the heavy depreciation of the yen took place. Since that time, the import duties on Japanese cotton piecegoods have been raised to 75 per cent. with the object of protecting the Indian mills, notice to terminate the Indo-Japanese Commercial Treaty on October 11th, 1933, has been given, and an Indian Safeguarding of Industries Act has been passed to protect local industries against the inroads of competing goods from overseas which are sold at such abnormally low prices that the existence of the indigenous industry is thereby endangered. Negotiations between the Government of India and an official delegation from Japan with a view to finding a solution to the present difficulties are to take place in Simla in the Autumn. Meanwhile, imports from Japan in a constantly widening range of goods continue to pour into the country and are sold at prices at which both Indian industries and European imports are quite unable to compete.

Competition by the United States of America.—Imports from the United States have been seriously handicapped by an adverse rate of exchange. Notwithstanding increased shipments of raw cotton to the extent of Rs.1.61 crores, total arrivals from the United States were reduced from Rs.12.8 to Rs.11.2 crores and the percentage figure fell from 10.2 to 8.5. A reference to table C on page 236 shows that imports of United States mineral oils have fallen by Rs.180 lakhs, motor vehicles by Rs.83 lakhs, machinery by Rs.41 lakhs, hardware by Rs.11 lakhs, instruments and apparatus by Rs.10 lakhs and rubber manufactures (largely tyres) by Rs.31 lakhs. The temporary removal of United States competition from the field has given United Kingdom exporters of motor vehicles a great opportunity, of which they have not failed to take advantage, the United Kingdom and United States shares in the trade in pleasure cars and taxi-cabs for the year being respectively 62 and 22 per cent. Considerable progress has also been made

by United Kingdom manufacturers of rubber tyres and mechanical rubber goods, lubricating oils, hand tools, electrical and mining machinery, etc., etc. The fall in the external value of the Dollar to the old par rate in May-June-July, 1933, will probably restore to some extent the position of United States shippers, but it is still too soon to know how far this fall has been offset by the increase in production costs as a result of President Roosevelt's programme. Meanwhile, United Kingdom manufacturers of competing goods should spare no effort to consolidate the ground gained.

German Competition.—Although shipments from Germany advanced slightly in value by a trifling Rs.19 lakhs, the percentage declined from 8.1 to 7.8. German competition increased in hardware, yellow metal sheets, artificial silk yarn and wrought copper, but was less insistent in cotton manufacturers and locomotives. Germany also has been adversely affected to some extent by the exchange advantage enjoyed by the United Kingdom, but has suffered mostly from the competition of Japanese goods which are sold in the bazaars at prices with which even the Hamburg merchant, with his resources of cheap supplies and great experience, has not been able to compete.

Belgian Competition.—The Belgian share of the trade has slightly increased, both actually and relatively. It is always difficult to assess the true value of Belgian trade as considerable quantities of German, Dutch and French merchandise are shipped from Antwerp and appear in the returns being of Belgian origin. As usual, the imports of Belgian iron and steel represented nearly 40 per cent. of the total trade, but these registered a decline of from Rs.153 to Rs.123 lakhs in the year under review, mainly on account of reduced shipments of galvanised sheets. The sheet agreement concluded with the United Kingdom rollers and embodied in the Ottawa Trade Agreement must seriously affect the Belgian sheet trade. Other items of export to India, notably precious stones, machinery, glassware and woollen manufactures showed material increases.

Italian Competition.—Imports from Italy during the year advanced by Rs.36 lakhs due mainly to increased consignments of artificial silk yarn and woollen piecegoods. Arrivals of cotton piecegoods, motor vehicles and machinery were all reduced. Italy also has suffered to some extent from the exchange handicap. Considerable quantities of German, Austrian, Hungarian and Czechoslovak goods are shipped by Italian steamers from Genoa and Venice, some of which appear in the returns as being of Italian origin.

Imports from Soviet Russia.—Reference to Appendix IV on page 239 shows that the total imports from Russia proper have fallen from Rs. 94½ to Rs. 36½ lakhs in consequence of reduced

shipments of beet sugar. To these figures, however, should be added imports from the Caucasian Republics of Georgia and Azerbaijan amounting respectively to Rs.111½ and Rs.54½ lakhs. These were almost entirely composed of kerosene oil, the total arrivals of which, from all parts of Russia, exceeded 40 million gallons valued at over Rs.163 lakhs. Oil shipments were mainly imported at Bombay and distributed throughout Western India. Although imports of tea chests from Russia fell to the insignificant figure of Rs.23,000, imports from the contiguous countries of Finland and Esthonia were valued at Rs.3 lakhs and Rs.4½ lakhs respectively. The imports of Russian alkali products, referred to in my last report, have not shown expansion. There is reason to believe that many Russian products are marketed by German merchants and exported from Hamburg.

The Balance of Trade.—The Controller of the Currency, in his informative report for 1932/33, upon which I have freely drawn for the ensuing comments, gives the following statement which compares India's visible balance of accounts during the year with the figures of the preceding two years and the averages of the last ten pre-war years ended 1913/14 and the first ten post-war years ended 1929/30. The detailed figures work up to a *plus* or *minus* balance (*plus* representing net export and *minus* representing net import) for each of the three main heads of classification, namely (1) private imports and exports of merchandise, (2) private imports and exports of treasure, and (3) remittances through Government leading up to a *plus* or *minus* total for the transactions as a whole :

[TABLE]

	Average of 10 pre-war years ending 1913-14	Average of 10 years ending 1929-30	1930-31	1931-32	1932-33
			(In lakhs of rupees)		
Exports of Indian merchandise (private)	} +1,94,67 {	+3,14,04	+2,20,49	+1,55,89	+1,32,43
Re-exports of foreign merchandise (private)		+ 11,68	+ 5,14	+ 4,66	+ 3,22
Imports of foreign merchandise (private) (*b*)	−1,22,93	−2,42,59	−1,63,58	−1,25,72	−1,32,27
BALANCE OF TRADE IN MERCHANDISE (PRIVATE)... ...	+ 71,74	+ 83,13	+ 62,05	+ 34,83	+ 3,38
Gold (private) (*a*)	− 20,87	− 24,04	− 12,75	+ 57,98	+ 65,52
Silver (private) (*a*)	− 7,67	− 15,49	− 11,65	− 2,59	− 73
Currency notes (private) (*a*)	—	− 27	− 3	+ 26	+ 13
BALANCE OF TRANSACTIONS IN TREASURE (PRIVATE) (*a*)	− 28,54	− 39,80	− 24,43	+ 55,65	+ 64,92
TOTAL VISIBLE BALANCE OF TRADE	+ 43,20	+ 43,33	+ 37,62	+ 90,48	+ 68,30
Council bills and telegraphic transfers paid in India, purchases of sterling from banks and firms in India and payments for sterling taken over in London from local bodies	− 38,47	− 26,00	− 7,26	− 53,04	− 48,18
Sterling transfers on London sold in India...	+ 1,22	+ 3,05	+ 7,75	+ 18,98	—
Transfers of Government securities...	− 71	− 6	− 8	+ 6	− 13
Interest drafts on India in respect of Government of India securities	—	− 35	− 33	− 32	− 32
BALANCE OF REMITTANCES OF FUNDS	− 37,96	− 23,36	+ 8	− 34,32	− 48,63
TOTAL VISIBLE BALANCE OF ACCOUNTS	+ 5,24	+ 19,97	+ 37,70	+ 56,16	+ 19,67

(*a*) Excludes transactions which do not enter into the balance of trade.
(*b*) Exclusive of the value of railway materials imported direct by State Railways working under company management.

The visible balance of trade was Rs.68,30 lakhs as compared with Rs.90,48 lakhs in 1931/32. The decrease of Rs.22,18 lakhs is accounted for by the heavy fall in the exports of Indian merchandise of almost all kinds during the year, the principal reductions being jute Rs.1,46 lakhs, raw cotton Rs.3,08 lakhs, seeds Rs.3,28 lakhs, hides and skins Rs.89 lakhs, grains Rs.4,25 lakhs, tea Rs. 2,28 lakhs, cotton yarn Rs.1,53 lakhs and wool Rs.1,54 lakhs. On the other hand, there was an increase in the export of gold on private account of Rs.7,54 lakhs and imports of foreign merchandise on private account increased by Rs.6,55 lakhs.. The trade balance in merchandise in favour of India fell from Rs.34,83 lakhs to Rs.3,38 lakhs, i.e., to 4 per cent. of the average of the ten post-war years and approximately 5 per cent. of the average of the last ten pre-war years.

The seriousness of the fall in the trade balance is accentuated in the case of India, which, as a debtor country, needs to maintain a large favourable balance of trade in merchandise. As Sir George Schuster pointed out at the Ottawa Conference :—

" The Government of India, in order to meet its essential obligations has to find about £30 million sterling annually, that is to say Rs.40 crores while, on the average, a further margin of 10 crores (£7½ million) at least is required to meet other items in the adjustment of payments on private accounts. Therefore, apart from movements of capital or the country's requirements for the purchase of precious metals, *India in order to maintain an even position requires a favourable trade balance of at least Rs.50 crores (£37½ million) annually.*"

It will be observed from the statement that the situation was saved last year by the heavy exports of gold, amounting to 8,354,000 ounces valued at Rs.65,52 lakhs, which resulted in a visible favourable balance of trade of Rs.68,30 lakhs. If it were not for the exports of gold, India could only afford to be importing at the rate of Rs.66,75 lakhs per annum instead of an actual figure for the year of Rs. 132,25 lakhs. The amounts remitted to London by Government decreased from Rs.53 to Rs.48 crores, the net balance of remittances amounting to Rs.48.63 crores and the total visible balance of accounts to Rs.19.67 crores, a decrease of roundly 65 per cent. below that of the previous year.

The Controller of the Currency points out that this striking fall of Rs.36.49 crores in the visible balance of accounts is due to a return to more normal conditions after an abnormal year. In 1931/32 the visible balance of accounts was swollen, first, by the flight of capital for various reasons (mainly political) and, second, by the liquidation of short-term outside funds retained in India to take advantage of the prevailing high money rates. Neither of these factors operated in 1932/33. Owing to the rise in the value of Indian sterling stocks over parity with corresponding investments in India, there was a repatriation of capital to India for investment. It is estimated that the amount must have been considerable and the rapid rise in the price of Indian rupee loans confirms this view.

Exports of Gold.—The net export of gold during the year was 8,354,000 ounces valued at Rs.65,52 lakhs. If one takes the weight in ounces of the gold exported and imported during a period of years, some striking facts emerge. As the Controller states :—

" Since 1920/21 India has imported 49.7 million ounces of gold, whereas during the same period the amount of gold exported was 21.8 million ounces only of which about 16½ million ounces have been exported in the last two years; that is to say, since 1920/21 the amount of gold exported by India is approximately 44 per cent. of the imports during the same period. If, therefore, allowance is made for the enormous imports of gold prior to 1920/21, it will be seen that in spite of the high premium available since Great Britain went off the gold standard only a small fraction of India's total gold holding has so far been realised. There has been considerable controversy as to whether the gold exported since October, 1931, has been mostly " distress " gold, that is to say gold which had to be sold by necessitous holders to meet current expenses, or whether it has been parted with as a business proposition to realise the profit from the prevailing premium. While it is probably true that a certain proportion of the gold exported in recent months has come out because holders had to realise their savings to meet current expenditure owing to the very low prices obtained for primary commodities, it is equally certain that a large proportion, possibly the larger proportion, has been sold as a purely business proposition to realise the premium. It is well-known that bullion dealers all over the country have been very active in collecting gold for sale to the export market, and in some districts special purchasing agencies were opened by exporters. It is reasonable to infer that many holders who parted with their gold would not have done so but for the allurement of an immediate profit which was pressed on their notice persistently."

The Course of Exchange and Remittances to the Secretary of State.—The highest and lowest quotations for telegraphic transfers on London were 1s. $6\frac{5}{32}$ d. in September, October, November and December, 1932, and January, 1933 and 1s. $5\frac{7}{8}$d. in May, 1932, and March, 1933. The Controller states that :—

" As in previous years, purchases were made by weekly offers for open tender in India and intermediates were sold throughout the week except on the tender day at a rate ordinarily 1/32d. above the highest rate at which tenders were accepted. The total amount of sterling purchases during the year amounted to £35,733,000 at an average rate of 1s. 6.156d. Exchange opened quiet in April and continued to be quiet during the month with a gradual downward tendency due to the rise in the dollar sterling cross rate and a consequent drop in the price of gold. There was little demand for remittance but on the other hand export bills were scarce and with the falling-off in gold exports the rate gradually sagged to 1s. $5\frac{7}{8}$d. early in June. At the first three auctions in April all tenders received were rejected and as no tenders were received for the auctions of the 27th April and 4th May, Government announced the discontinuance of purchases until further notice. From the middle of June conditions began to improve partly because of an increase in gold exports due to a rise in the price of gold and also partly due to sales of sterling stocks in London for repatriation to India for investment in rupee securities. The prices of sterling stock had risen to a point where it paid the investor to sell out and re-invest in India and since the adverse political conditions which during the previous year had led to a substantial flight of capital from India no longer obtained, investors availed themselves freely of this opportunity to change their investments at a profit. The market was strong by the beginning of August, and as little cover in the form of private remittance was available, a demand arose for Government to come into the market to purchase. An announcement was made on the 8th August calling for tenders for £500,000 on the 10th and

the full amount was accepted at 1s. 6 $\frac{5}{32}$d. The market continued to be steady until the end of the month and Government were able to purchase £500,000 weekly by tender and £1,965,000 intermediates. From the 8th September the amount offered was raised to £1 million and during the course of the following week intermediates to the amount of £2,400,000 were purchased at 1s. 6 $\frac{5}{32}$ d. The Government buying rate remained unchanged from then up to the middle of March, but purchases at the auctions from the 25th January to the 15th March were on a small scale. The news received on 6th March that the United States of America had temporarily prohibited the export of gold and dealings in foreign exchange led to an immediate and precipitate fall in the rupee sterling exchange from 1s. 6$\frac{3}{32}$d. to 1s. 5$\frac{7}{8}$d.

The uncertainty and uneasiness created by the President's proclamation were reflected in all the markets of the world and until the full implications of the step could be ascertained banks were unwilling to sell without cover and quotations were to all intents and purposes nominal. Confidence in the rupee sterling exchange returned quickly, however, and normal business was resumed after a few days. Exchange rose to 1s. 6$\frac{3}{32}$d., and at the last auction of the year Government were able to purchase £1 million of which £850,000 was accepted at 1s. 6$\frac{1}{16}$d."

Money Market Conditions in India during the Year.—The year opened with the bank rate at 6 per cent. and it remained at that level until the 28th of April, 1932, when it was changed to 5 per cent. A rapid return of funds enabled the Imperial Bank to repay in April the outstanding balance of the advance of Rs.9$\frac{1}{2}$ crores taken from the Paper Currency Reserve in 1931-32. Owing to low commodity prices and slackness in trade there was practically no demand for money throughout the year and the bank rate was reduced to 4 per cent. on the 7th July, 1932 and to 3$\frac{1}{2}$ per cent. on the 6th February, 1933. The Bank's cash balance at the close of the year was Rs.26$\frac{1}{2}$ crores.

The Public Debt.—The following statement, abstracted from the Currency Report, shows separately loans, treasury bills in the hands of the public and in the Paper Currency Reserve, Ways and Means advances from the Imperial Bank and other obligations of the Government of India. On the other side of the account are shown the cash, bullion and securities held on Treasury account, that is to say, as distinct from the Paper Currency and the Gold Standard Reserves. Those assets are also shown which are represented by definite interest-bearing obligations to the Government of India either from provincial governments and Indian States or the Indian railways and other Government commercial departments :—

	31st Mar. 1931	31st Mar. 1932	31st Mar. 1933
IN INDIA.	(In crores of rupees)		
Loans (*a*)	417.24	422.69	446.91
Treasury Bills in the hands of the public	55.38	47.53	26.09
Treasury Bills in the Paper Currency Reserve	5.89	49.67	35.48
Ways and Means Advances	—	9.50	—
Total Loans, etc.	478.51	529.39	508.48
Other Obligations—			
Post Office Savings Bank	37.03	38.20	43.33
Cash Certificates	38.43	44.58	55.63
Provident Funds, etc....	70.33	73.04	76.55
Depreciation and Reserve Funds ...	21.39	17.65	16.85
Provincial Balances (*b*)	6.09	4.32	4.66
Total Other Obligations	173.27	177.79	197.02
Total in India	651.78	707.18	705.50
IN ENGLAND.	(In millions of £)		
Loans (*a*)	316.81	313.60	314.32
War Contribution	16.72	16.72	16.72
Capital value of liabilities undergoing redemption by way of terminable railway annuities	50.32	48.72	47.06
India bills	—	—	—
Imperial Bank of India Loans	4.05	—	—
Provident Funds, etc.	.69	.80	.92
Total in England	388.59	379.84	379.02
	(In crores of rupees)		
Equivalent at 1s. 6d. to the rupee ...	518.12	506.45	505.36
Total interest-bearing obligations	1,169.90	1,213.63	1,210.86
Interest-yielding assets held against the above obligations—			
(i) Capital advanced to Railways ...	743.98	750.73	751.54
(ii) Capital advanced to other Commercial Departments	23.65	23.75	24.49
(iii) Capital advanced to Provinces ...	151.82	163.64	171.79
(iv) Capital advanced to Indian States and other interest-bearing loans	19.45	20.29	21.05
Total interest-yielding assets ...	938.90	958.41	968.87
Cash, bullion and securities held on Treasury account	34.03	41.42	35.07
Balance of total interest-bearing obligations not covered by above assets ...	196.97	213.80	206.92

(*a*) These figures represent the nominal amounts of loans outstanding and also include comparatively small amounts of expired loans which do not bear interest.

(*b*) The figures represent those portions of provincial balances which bear interest either because they form part of the old Famine Insurance Fund or the present Famine Relief Fund or because they have been placed with the Government of India on fixed deposit.

The soundness of India's debt position is clearly shown. It will be seen that India's unproductive debt has been reduced by Rs.7 crores during the year after allowing for a loss on sales of silver. The total debt of India was reduced by Rs.2½ crores from Rs.1,213.6 crores to Rs.1,210.9 crores. This is mainly due to the revenue surplus and the heavy curtailment in the capital outlay on railways. A study of the table shows that India possesses interest-yielding assets plus cash, bullion and securities held on Treasury account amounting to Rs.1,003.94 crores to set against her total interest-bearing obligations of Rs.1,210.86 crores, leaving an uncovered balance of only Rs.206.92 crores or 17 per cent. of the whole. It will be granted that the debt position of India rests on a very firm basis, when it is appreciated how large a proportion of the debt is invested in railways and irrigation projects; both are magnificent assets which, when economic conditions improve, will again show increasing returns and a growing contribution to the relief of taxation.

The Year's Loans.—The Controller describes the Government of India's public borrowings during the year as follows:—

"**The Rupee Loans.**—The gradual appreciation in both rupee and sterling Government of India securities and the continuous decline in money rates during the year indicated the desirability of taking full advantage of the prevalent easy money conditions to reduce the burden of the large volume of floating debt and of the early maturing debt bearing onerous rates of interest, and with this object in view, the unprecedented step was taken of floating successively four rupee loans.

5½ per cent. Loan, 1938-40.—The first loan took the form of a 5½ per cent. issue liable to income tax. It was issued at Rs.98 per cent. and is repayable at par not later than the 1st October, 1940, and not earlier than the 1st October, 1938. It opened for subscription on the 6th June, 1932, and closed on the 18th June, 1932, and was for an unlimited amount. Subscriptions were payable in cash, in 6 per cent. Bonds 1932 and in Treasury Bills. The total amount subscribed was Rs.19,14 lakhs of which Rs.13,70 lakhs were by tender of cash, Rs.3,63 lakhs by tender of 1932 Bonds and Rs.1,81 lakhs by tender of Treasury Bills.

5 per cent. Loan, 1940-43.—The next loan was a 5 per cent. issue, liable to income tax. This also was issued at Rs.98 per cent. and is repayable at par not later than the 1st October, 1943, nor earlier than the 1st October, 1940. It opened for subscription on the 17th August, 1932, and was closed on the same day, in accordance with the terms of the loan notification which provided that it would be closed without notice as soon as it appeared that the total subscriptions, which were to be in cash, in 5 per cent. Bonds 1933 and 6 per cent. Bonds 1933-36, amounted approximately to Rs.25 crores (nominal value) and, in any case, not later than the 31st August, 1932. The total nominal value of the loan applied for was Rs.29,82 lakhs of which Rs.9,45 lakhs was by tender of cash, Rs.10,42 lakhs by tender of 5 per cent. Bonds, 1933, and Rs.9,95 lakhs by tender of 6 per cent. Bonds, 1933-36. In accordance with the terms of the loan notification, which provided that, in the event of over-subscription on the opening day, partial allotment would be made to the subscribers in cash, applications by tender of cash for amounts not exceeding Rs.5,000 in each case were allotted in full, while those for amounts exceeding Rs.5,000 were allotted approximately 50 per cent., subject to a minimum allotment of Rs.5,000. The total nominal value of the loan issued thus came

to Rs.25,18 lakhs of which Rs.4,81 lakhs was against tender of cash, Rs.4,54 lakhs of cash having been refunded on partial allotment. The 5 per cent. Bonds, 1933, and the 6 per cent. Bonds, 1933-36, were accepted at premia of Rs.1-8-0 and Rs.2-8-0 respectively, and the nominal value of these loans tendered for conversion amounted to Rs.10,07 lakhs and Rs.9,52 lakhs.

4 *per cent. Bonds,* 1943.—The third loan was announced on the 18th January, 1933. This loan was a 4 per cent. issue liable to income-tax. It was also issued at Rs.98 per cent. and is repayable at par on the 1st August, 1943. Subscriptions to the loan were payable in the form of cash or of Indian Treasury Bills. The loan opened for subscription on the 23rd January, 1933. The notification announcing the loan provided that it would be closed without notice as soon as it appeared that the total subscriptions amounted approximately to Rs.15 crores (nominal value), and in any case not later than the 26th January, 1933. It also provided that, if the total subscriptions received on the opening day exceeded Rs.15 crores, partial allotment would be made to the subscribers in cash.

The conditions of the money market indicated that the loan was likely to be fully subscribed on the opening day. The lists remained open actually for less than 2 hours and the total nominal value of the loan applied for during this short period was Rs.24,77 lakhs of which Rs.9,80 lakhs was by tender of cash, and Rs.14,97 lakhs by tender of Treasury Bills. Applications accompanied by tender of cash were all rejected in terms of the loan notification, as the loan was practically fully subscribed in the form of treasury bills which were accepted in full. The nominal value of the treasury bills tendered in subscription and accepted was Rs.14,67 lakhs.

4 *per cent. Conversion Loan,* 1960-70 (*2nd Issue*).—The last loan of the year which was a re-issue of the 4 per cent. Loan, 1960-70, was a purely conversion loan. It opened on the 1st February, 1933, and closed on the 28th February. This loan is repayable at par not later than the 15th September, 1970, and not earlier than the 15th September, 1960, the interest being liable to income-tax. Holders of the 5 per cent. War Loan, 1929-47, the 5 per cent. Bonds, 1933, and the 6 per cent. Bonds, 1933-36, were given the option of converting their holdings into this loan, on the following terms. For every Rs.100 (nominal value) of any of the above loans tendered for conversion, the applicant received Rs.100 (nominal value) of the 4 per cent. Loan, 1960-70, and, in addition, a cash bonus of Rs.7-8 in the case of the 5 per cent. Loan, 1929-47, and of Rs.8-8 in the case of the other two loans. The total amount converted was Rs.33,85 lakhs, of which Rs.15,50 lakhs were by tender of the 5 per cent. War Loan, 1929-47, Rs.7,12 lakhs by tender of the 5 per cent. Bonds, 1933, and Rs.11,23 lakhs by tender of the 6 per cent. Bonds, 1933-36.

Although money was very easy when the first flotation was announced on the 1st June, 1932, market conditions were not very favourable and actually worsened during the period which elapsed between the first announcement and the opening of the lists. Political trouble and communal riots broke out at Bombay on the eve of the announcement of the loan and international factors such as the United States of America's refusal to participate in the Lausanne Conference and fears regarding a possible crisis in Central Europe created renewed distrust and want of confidence all round with the result that both sterling and rupee securities weakened whilst the loan was still open. The exchanges also showed signs of weakness—a factor which necessarily precluded Government from discontinuing the issue of treasury bills during the loan period. All these circumstances considered, the results of the loan operations were by no means unsatisfactory. Market conditions were extremely favourable for the three other flotations.

There had been a continuous and substantial appreciation in the rate of both rupee and Indian sterling securities since the issue of the first rupee loan in June, and it was clear that any opportunity which presented itself to convert early maturing debt to a lower rate of interest should be utilised. In the case of the second rupee loan the announcement of the success of the British War Loan conversion operation coincided with the opening of the lists and had a

very stimulating effect on subscriptions. The third rupee loan being for a limited amount open to subscriptions in cash and treasury bills only was immediately over-subscribed. The success of this loan paved the way for the large conversion operation which was to follow. Conditions in the market continued to be extremely favourable and it was evident that there was a wide demand for longer term investment. Government decided to notify for redemption on the 15th May, 1933, and the 15th August, 1933, respectively the 5 per cent. War Loan, 1929-47, amounting to 19,62 lakhs and the 6 per cent. Bonds, 1933-36, amounting to 20,19 lakhs. In the result, a total of 26,73 lakhs of these two loans and 7,12 lakhs of the 6 per cent. Bonds, 1933, were converted into 4 per cent. Loan, 1960-70. The success of this operation placed the finances of the Government of India on a very sound basis as it reduced the amount of early maturing debt outstanding to easily manageable proportions and also lowered the yield offered for medium or long-term borrowings from 5.8 per cent. to 4.5 per cent. The following figures showing the results of the loans and the conversion operations will be of interest.

The total amount of loans (maturing or redeemable in 1933) outstanding on 1st April, 1932, was as below :—

6% Bonds, 1933-36	29.7	crores.
5% Bonds, 1933	21.4	,,
5% War Loan, 1929-47	19.7	,,
	70.8	,,

Of the above 19.6 crores were converted into 5 per cent. loan, 1940-43 and 33.8 crores into 4 per cent. loan, 1960-70, leaving a balance of 17.4 crores distributed as follows :—

6% Bonds, 1933-36	9.0	crores.
5% Bonds, 1933	4.3	,,
5% War Loan, 1929-47	4.1	,,
Total	17.4	,,

In addition, treasury bills of the face value of 1.8 and 14.7 crores, were converted into 5½ per cent. Loan, 1938-40 and 4 per cent. Bonds, 1943, respectively.

Sterling loan : flotation and repayments.—An issue of 5 per cent. stock 1942-47 was made in April, 1932, at 95 per cent. for a total amount of £10,000,000. The stock is redeemable at par on the 15th June, 1947, or at any time after the 15th June, 1942, with 3 calendar months' previous notice. There were 4,954 applications for a total amount of £21,895,400 stock. Applications for amounts up to £200 were allotted in full. Larger applications received allotments of 44.54 per cent.

The 6 per cent. Sterling Bonds, 1932, the outstanding balance of which was £4,706,600, were repaid on the 15th June, 1932, on maturity. £4.3 million 6 per cent. Bonds, 1933-35 were also purchased and cancelled during the year."

Prices of Securities.—" When the year opened business in the securities market was dull, 3½ per cent. paper being quoted round 61½. Towards the end of the month, however, the instantaneous success of the 5 per cent. sterling loan for £10 millions announced on the 25th together with a reduction in the Imperial Bank of India rate from 6 per cent. to 5 per cent. on the 28th had a stimulating effect. Prices improved gradually and the market was steady throughout May. The announcement of the 5½ per cent. 1938-40 loan on the 1st June had little effect on the market, but later in the month the unexpectedly slow progress of subscriptions to the new loan, combined with a drop in Indian sterling loan prices, had a somewhat depressing influence.

This proved to be only very temporary, and towards the end of the month the market became buoyant and Indian sterling stocks also showed a strong and rising tendency. India sterling loans continued to appreciate very rapidly from this point and prices became completely out of parity with those of similar rupee loans with the result that investors sold substantial amounts of sterling securities and remitted the proceeds to India for investment in both long term and short term rupee paper. The flight of capital which was apparent in the two previous years was therefore completely reversed and a large portion of the funds which left the country at that time was repatriated. The effect on rupee securities was remarkable. Scrips of all maturities appreciated rapidly, and although there were minor fluctuations from time to time mainly due to disturbing international conditions prices touched their highest point in the last month of the year.

The most encouraging feature in the securities market was the revival of interest in long term investment which had been almost completely absent during the two preceding years, and it was this which enabled the Government of India to fund a large portion of their short term liabilities into long term debt. The ban on forward dealings in 3½ per cent. paper which had been imposed by the Bombay Stock Exchange in 1931 was lifted during the course of the year under review with the result that dealings in the market became much more active. The statement below shows the highest and lowest prices for each month of the year of the India 3½ per cent. sterling loan :—

	Highest	Lowest
	£	£
April, 1932	67	65
May, 1932	70½	66
June, 1932	75½	66
July, 1932	83	79½
August, 1932	81	75
September, 1932	82½	79
October, 1932	90	85
November, 1932	92	83½
December, 1932	88¼	83½
January, 1933	99	86½
February, 1933	99⅝	99⅛
March, 1933	101¼	99

The Indian Budget.—The Honourable The Finance Member in introducing the budget on March 1st, 1933, summarised the position by stating that the results for the year 1931-32 were nearly Rs.2 crores better than was anticipated and the accounts for the year showed a deficit, after providing nearly Rs.7 crores for reduction of debt, of Rs.11¾ crores. The latest revised estimates for 1932-33 indicated that the forecasted surplus of Rs.2.15 crores would be almost exactly realised and that the actual surplus—after providing nearly Rs.7 crores for reduction of debt—would be Rs.2.17 crores. Sir George Schuster added that :—

" The results for the two years combined thus show a total budgetary deficit of Rs.9.58 crores against which may be set the total provision made for reduction of debt of Rs.13.73 crores. We may therefore say that in the two years from April 1st, 1931, to March 31st, 1933—which I think may be fairly described as the two most difficult years for public finance that the world in times of peace has ever known—we shall not only have paid our way but have provided

a net sum of Rs.4 crores, 15 lakhs for the reduction of debt. I think that this result is one which is a legitimate cause for satisfaction and which amply justifies the great improvement in the credit of the Government of India which the recent rise in our security prices has shown."

In presenting the estimates for 1933-34 the Finance Member explained that, in view of the completely uncertain and abnormal conditions, accurate estimation of revenue, particularly customs revenue, for the coming year was impossible. It had been decided that the most reasonable course was to assume that the general position next year would be the same as for the current year and that India would be able to maintain the same purchasing power for commodities imported from abroad. The anticipations are summarised in the following statement :—

	Rs. (lakhs.) Better.	Worse
REVENUE.		
Customs. (Reduction due to fall allowed for in imports of sugar and piecegoods)		1,04
Income Tax. (Increase due to removal of exemption from surcharge on Government servants) ...	53	
Salt. (Reduction mainly due to termination of temporary increase in receipts on termination of credit system)		1,63
Opium	25	
Finance Heads. (Net changes including additional expenditure of 1 on account of part restoration of cut in pay)		15
Commercial Departments. Net Revenue		11
Miscellaneous. (Reduction of 30 due to no provision being included in next year's estimates for gain by exchange)		45
Expenditure. (Net reduction effected in spite of part restoration of pay cut costing Rs. 79½ lakhs under these heads as compared with the revised estimates. This net reduction together with the reduction of 5 under Irrigation and Currency and Mint taken on the revenue side gives a total reduction of 90) ... ... (Military & Civil Heads.)	85	
Total	1,63	3,38

The net deterioration for the next year is, therefore, estimated at Rs.175 lakhs, so that the surplus of Rs.217 lakhs shown in the revised estimate for 1932-33 will be reduced to a surplus of Rs.42 lakhs in 1933/34.

Increased Import Duties.—As the United Kingdom exporter is mainly interested in alterations in the customs tariff, it will suffice here to refer to two minor changes in the import duties on boots and shoes, and artificial silk piecegoods and mixture cloths which are described as being revenue measures with a protective significance. In the case of *uppers for boots and shoes* unless entirely

made of leather, the duty is now 25 per cent. or 2½ annas per pair whichever is higher. The Finance Member explained that factories had been established in India for the production of shoes made from imported canvas uppers and imported rubber soling sheets. Both of these constituents pay duty at no more than the standard revenue rate and the result is that by merely assembling in India what are really foreign manufactures the amount of duty paid by importers is greatly reduced. A minimum specific duty of 2½ annas per pair, i.e., half the rate applicable to complete boots and shoes has been imposed. This will safeguard the revenue while it will leave a slight margin of advantage to the local assembly plant as compared with the importer of the complete article. Leather uppers, which in any case could not be cheap enough to fall within the scope of the minimum specific duty are excluded for the technical reason that the *ad valorem* duty to which they are liable is, owing to the operation of the Ottawa Trade Agreement, different from that applicable to other uppers. In the case of *artificial silk piecegoods,* other than fents of not more than nine yards in length, the import duty is now 50 per cent. or four annas per square yard whichever is higher. As regards *silk or artificial silk mixtures,* the duty is now 35 per cent. or two annas and three pies per square yard whichever is higher on (a) fabrics composed in part of some other textile than silk or artificial silk and in which any portion either of the warp or of the weft but not of both is silk or artificial silk and (b) fabrics not being silk or artificial silk on which silk or artificial silk is superimposed such as embroidered fabrics; and 35 per cent. *ad valorem* on (c) articles made from such fabrics and not otherwise specified. The duty on fents of not more than nine yards in length of fabrics specified in (a) and (b) above is now 35 per cent. *ad valorem.* The Finance Member explained that the old rate for mixtures was, owing to the operation of surcharges, 34⅜ per cent. This item was an intermediate rate between that applicable to silk and that applicable to the other textile ingredient, whatever it might be, with which the silk was mixed. With the raising of the duty on non-British cotton piecegoods to 50 per cent. in August, 1932, a new situation had been created, for manufacturers of such goods could escape this special duty by introducing at a trifling expense a very small quantity of silk or artificial silk into the warp or weft of cotton goods, and thus secure assessment at the lower rate applicable to mixtures—a result which would not only involve loss of revenue but would impair the operation of the protective policy of the Government. The Government of India considered that merely to raise the *ad valorem* rate would not only be a dangerous device from the revenue point of view, but would also be unfair to the manufacturers of the more expensive article in countries other than Japan and, for both these reasons, they decided to resort to minimum specific duties of 4 annas per square yard for pure goods and 2 annas 3 pies per square yard for mixtures.

The Railway Budget.—The Honourable Member for Commerce and Railways, reviewing the financial year 1932/33 stated that the receipts, according to the revised estimates, were expected to amount to Rs.85¼ crores, the lowest on record since 1921/22. Working expenses amounting to Rs.49 crores (excluding Rs.13¾ crores for depreciation) will be about two crores less than in 1931/32 due to the emergency deduction from pay and partly to retrenchment of expenditure. The loss on commercial lines is expected to be Rs.7.32 crores and that on strategic lines Rs.2.02 crores representing a total loss of Rs.9.34 crores. As there is no free balance in the Reserve Fund, the whole of this loss will be met by temporary loan from the Depreciation Fund, which, after deducting this loan, will stand at Rs.13.68 crores at the end of 1932/33.

The budget for 1933/34 anticipates traffic receipts of Rs.87 crores—an increase of 2 per cent. over 1932/33. Working expenses are expected to be Rs.63 crores (including Rs.13¾ crores for depreciation) leading to a final result which is estimated at a total deficit for 1933/34 of Rs.7.77 crores, viz Rs.5.80 crores on commercial lines and Rs.1.97 crores on strategic lines. This deficit also will be wholly met by a further temporary loan from the Depreciation Fund, which, at the end of 1933/34, after deducting this loan, will stand at Rs.13.71 crores. During 1932/33 and 1933/34 the cost of renewals and replacements charged to Depreciation Fund will be substantially less than the amounts placed to the credit of the fund by Rs.8.15 crores and Rs.7.8 crores respectively. The temporary loans to meet the deficits in the two years will therefore only reduce the balance in the Fund by about Rs.1¼ crores.

In the ten years from 1924/25 when the Railway Budget was separated from the general budget of the country, Indian railways will have earned a net surplus of Rs.21 crores, surpluses in the first six years amounting to about Rs.52 crores and deficits in the next four years amounting to about Rs.31 crores. They have contributed during the first seven years about Rs.42 crores to General Revenues and put by Rs.35 crores into the Depreciation Fund after meeting the cost of current replacements and renewals, which has enabled them to meet their deficits in recent years without outside borrowing.

Continued Curtailment of Railway Capital Expenditure.—United Kingdom suppliers of railway plant and material, who have suffered so severely during the past few years by the curtailment of the Indian railway programme of capital works and new construction, will again derive little immediate comfort from the outline of the capital programme for 1933/34 which was given by the Chief Commissioner of Railways in the following terms:—

" We have been pressed from many sides to undertake a large programme of new construction and rehabilitation with the object of stimulating trade and industry and of being in a position to meet the trade revival when it comes.

There is a certain amount of force in the arguments used, and we have not lost sight of these in framing our programme for the ensuing year. This has been designed to help trade and industry, to place the railways in a position to meet any increase of traffic which can reasonably be expected, and to ensure more economical working. It may be considered that we have not gone as far as we might have done, but it must be remembered that though an increase in our works programme may give a temporary stimulus to trade and industry, unless there are very definite prospects that the works undertaken will be remunerative in the near future, the result will be the saddling of Railways with a load of debt which would require to be met with a further increase in rates and fares, a contingency which we are particularly desirous of avoiding as it must react on trade and industry and delay their revival. We believe our programme allows for all really essential works. For example, the construction of the Chambal and Sindh bridges on the Great Indian Peninsula Railway, which with the completion of the relaying beyond Jhansi (which it is hoped to undertake within the next two years), will enable heavy engines, with consequent heavier loads, to run between Bombay and Delhi. This will increase the capacity of the line and ensure more economical working. Then the replacement of 3,000 uneconomical wagons by 2,500 wagons of higher tare capacity will cheapen the cost of transport and maintenance. We hope that these 2,500 wagons are only a first instalment and that we shall be able in succeeding years to continue this renewal policy, and if traffic justifies it, speed it up. I would also draw attention to the reconstruction of the Nerbudda Bridge on the Bombay, Baroda and Central Indian Railway. This will remove the last weak link on that Railway's main line to the north. The only other important works to which reference need be made are the remodelling of the Salt Cotaurs Yard on the Madras and Southern Mahratta Railway near Madras and the remodelling of Hubli Station on the same railway, both works overdue. As regards new construction, about 2/3 of a crore is being spent during the current year and Rs.32 lakhs has been allowed for the year 1933/34. These sums have been provided to complete works already started during the more prosperous years and no new projects are being undertaken. We have, however, not lost sight of the fact that when prosperity returns there will be a demand for new railways to develop the country. For example, we have just completed a fresh engineering survey of the Bombay-Sind connection and we are now undertaking a fresh traffic survey so that we may be in a position to start work on this very important line when and if traffic justifies. In the result, our programme necessitates the provision of Rs.5½ crores from the Depreciation Fund and Rs. 3 crores of capital during 1932/33. This is to a certain extent offset by allowing for a reduction of Rs.1½ crores in stores balances, giving a total expenditure from capital and depreciation of Rs.7 crores during the year. During 1933/34 our expenditure on open line works under capital and depreciation is expected to amount to Rs.10½ crores, of which Rs.6 crores will be derived from the Depreciation Fund. Of this amount, Rs.1¾ crores is required for work in progress, about Rs.4¼ crores for track renewals, and Rs.2½ crores for rolling stock. We anticipate a further reduction of about Rs.1¼ crores in stores balances, so the net expenditure under capital and depreciation will amount to about Rs.9 crores."

Prospects for an Increase in Capital Expenditure.—A slightly more hopeful note was sounded by the Railway Member in his budget speech when he said :—

" I should like to refer in passing to the suggestions that have been made from many quarters that Government should take the opportunity presented by the present comparatively low rates of interest and low prices of material to embark on a larger programme of railway construction and development. It is undoubtedly true that the fall in the rate of interest has made certain projects which we had to lay aside as unremunerative in recent years more

attractive. At the same time, it must not be forgotten that the question of the remunerativeness of new constructions will now have to be examined afresh with reference to the rival claims and possibilities of road transport much more carefully than in the past. It is, for instance, a question for careful consideration whether the facilities sought to be provided by short branch line extensions of, or feeders to, existing lines, to which a good deal of attention has been paid in India in the past, cannot be more profitably supplied as part of a co-ordinated scheme of road development. An era of cheaper money would certainly necessitate our re-examining with care and attention many schemes which would have resulted in a reduction in maintenance or operating costs, but have had to be laid aside because they were not considered remunerative when higher rates of interest prevailed. All these investigations and examinations will take some time and cannot affect the next year's budget. They will, however, receive our careful consideration and the House may rest assured that when we come to the conclusion that it is wise and in the interests of railways and the country at large to undertake capital outlay of any sort on railway construction and development, we shall not hesitate to take the first opportunity of laying such proposals before you or the Standing Finance Committee for Railways."

A Road-Rail Conference was held in Simla in April, 1933, the proceedings of which are reviewed on pages 52-53. The Conference unanimously resolved that, in the general public interest the time has come for increased co-operation and a more intelligent co-ordination of efforts between the various authorities and interests concerned in the matter of (a) future Railway development, and of (b) the future development of road communications whether used for motor transport or for other purposes.

It is probable that the whole question of the desirability of increasing capital expenditure, so as to take full advantage of low rates of interest and favourable prices of material, may be reviewed by the Government of India towards the close of the present financial year when they will be in a position to see whether their budget anticipations are being fulfilled and when, it is hoped, the World economic outlook may be a little clearer. If the budget prospects for next year are then found to be satisfactory and India's general financial position is well-maintained, it *may be* that a materially increased railway capital expenditure programme for 1935/36 may be embarked upon, the contracts for which would so far as rolling stock and imported material are concerned, in the normal course be placed during the summer of 1934.

The Honourable the Finance Member in his budget speech on March 1st, 1933, went so far as to state :—

" We believe that the time is coming when our position will be so strong that we can safely contemplate relaxing the restriction on capital expenditure which we have had to impose during the last few years. With the success of our conversion schemes we are gradually approaching a period when we shall be entirely relieved of the embarrassment of having to meet heavy loan maturities each year. Once that stage is attained we shall require to raise only a very small amount of money from the public each year in order to support quite a substantial programme of capital expenditure. But there are certain conditions which will very definitely govern our action. In the first place we must adhere to the policy of not regarding any schemes as suitable objects for capital expenditure which are not economically sound and productive. In the second place, we do not intend to launch out into any programme on a scale

which is likely to depress the market for Government securities by putting us in the position of having to ask the investing public to subscribe more money than it has readily available for investment. We are approaching a period when there is more money for investment in Government loans than we require to raise. That is a very healthy change of conditions from those of the past few years and we do not intend to disturb these new conditions. As regards the outlets for capital expenditure, these again must be carefully chosen. *Contrary to the general impression, it does not appear that there are any very urgently needed railway extensions or railways works, for in spite of the restrictions of the past few years, the railways have kept fairly well abreast of current needs.* Railways, moreover, must no longer be treated in isolation; they must be regarded merely as one part of a general system of transportation and communications, of which roads also are a most important feature. At the Conference on Road and Railway policy which is to be held at Simla on April 24th, 1933, we shall consider the whole problem of financing road development. Whether any immediate opening for sound capital expenditure can be found in connection with roads I cannot yet say. All that I can say is that the time has come when we think it right to give these matters our active consideration."

United Kingdom contractors to Indian Railways should follow the position closely, as they may find, towards the close of 1933 or early in 1934, a much more favourable turn in events.

Road Development in India.—The following note on the progress made during the year in co-ordinating road development throughout the country has been courteously supplied by Mr. K. G. Mitchell, M.Inst. C.E., Road Engineer with the Government of India :—

" With the beginning of the financial year 1932/33, the road development account entered on the fourth year of its existence. After deducting 10 per cent. of the proceeds of the duty on motor spirit as a reserve with the Government of India for special grants for special purposes, the distribution of the remaining 90 per cent. on the basis of petrol consumption amongst provinces, minor administrations and Indian States had presented considerable difficulty. Accurate figures of petrol sales by Provinces and States and the shares of Provincial Governments, Minor Administrations and States have since been calculated with the help of the oil companies finally up to 31st March, 1932, and shares have been allotted. The following shows in lakhs of rupees the amounts finally distributed up to that date :—

	Rs. (lakhs).
Assam	6.005
Bengal	41.074
Bihar & Orissa	10.641
Bombay	49.387
Burma	29.280
Federated Shan States	2.372
Central Provinces	9.364
Madras	41.882
Punjab	20.141
United Provinces	16.540
North-West Frontier Provinces	5.738
Minor Administrations and States (Block grant)	39.760
	272.184

The figures below show that despite trade depression the revenue in the road development account did not greatly suffer. It was partly supported by the imposition of the emergency surcharge of 25 per cent. on the import and excise duties on petrol from October, 1931.

	Rs. (lakhs).
1929-30	102.38
1930-31	98.03
1931-32	102.01
1932-33 (from April to September)... ...	55.54

The position of the reserve on 30th September, 1932, up to which date the figures of revenue realised were available, was as follows:—

	Rs. (lakhs).
Credits to the end of September, 1932 ...	35.79
Add special windfall	9.39
Total	45.18
Debit Expenditure on account of the Road Engineer's budget for the three years ending 1932-33	1.36
Grants sanctioned for road experiments ...	1.35
Grants definitely sanctioned for special works of all-India importance	27.13
Total	29.84
Balance	15.34

It was mentioned in the last report that on account of the financial stringency the Government of India had, by a Resolution in the Legislative Assembly and the Council of State in September, 1931, obtained sanction to use as a temporary measure the provincial shares in the road development account for expenditure on the ordinary maintenance of roads on the condition that when the situation improved the amount borrowed for maintenance would be restored to the approved programmes of development. During the year 1931-32, the Governments of Bombay and the Punjab applied for and were granted with the approval of the Standing Committee on Roads interest free loans of Rs.16 lakhs and Rs.8.26 lakhs, respectively, from their share in the road development account for the maintenance of their roads. Besides this, the Governments of the Central Provinces and Assam were with the approval of the Committee granted loans of Rs.2.50 lakhs and Rs.4.28 lakhs respectively, for the completion of certain roads which had been started before the institution of the road development account.

Grants aggregating to about Rs.1.50 lakhs have been sanctioned for road experimental schemes in Bengal, Bombay, the Punjab, the Central Provinces, Burma, Assam, Baluchistan and Bharatpur. Work on some of these schemes has been completed while on others it is in progress.

At the instance of the Committee of Chief Engineers in 1931, mention of which was made in the last report, research and experiments were directed towards low cost improvements. Something has been achieved and further experiments are being made, but on an insufficient scale. Among the reasons for this are the following. Apart from the Road Rail Enquiry an unexpectedly large amount of the time of the Road Engineer with the Government of India was taken up in the various administrative matters, and the issue of the " Indian Roads " Magazine through which attention can be drawn to developments in different directions which appear to be worth following up, has not

been as frequent as was hoped. Another reason is that, before the grants for experimental purposes are made by the Government of India, they wish to be satisfied that the local Government concerned is definitely interested in the experiment as likely to be of value, as an earnest of which they usually require half the cost to be contributed from provincial revenues including the shares in the road development account. Owing to financial stringency, expenditure has been ruthlessly curtailed and even small demands for experimental work from provincial revenues appear to have been ruled out. Another reason is that in India there are inadequate facilities for those interested in improvements to meet for discussion and the exchange of ideas. There appears to be a very useful field in India for the creation of some society or association concerned with roads only which can meet at intervals, discuss progress, apportion fields of experiment, and meet again to discuss results, somewhat on the lines of the Highway Research Board of the United States of America. For example, there will be a man in one province who has made a special study of earth road improvement; in another an expert on the use of tars and bitumen, and in a third an expert on concrete roads and so forth, and these are the people who should be brought together for discussion. The Standing Committee on Roads at their meeting held on the 18th March, 1933, considered this matter carefully and provisionally recommended consideration of the constitution of a non-official body of officials and others to assist in research and experiments.

The chief event of the year has been the enquiry by Mr. K. G. Mitchell, Road Engineer with the Government of India and Mr. L. H. Kirkness, who was at the time an officer on special duty with the Railway Department, into the present state of road and railway competition and the possibilities of their future co-ordination and development, and cognate matters in Governors' Provinces. Both these officers toured all over India except Burma and collected much evidence and information. The report which has been published shows the losses at present suffered by railways from motor competition and discusses the reasons and possible remedies principally in the direction of better control of motor transport. It is emphasised in the report that the existing road system of India has become unbalanced in that the general standard and condition of trunk and main roads is relatively far superior to that of local feeder or district roads which are in the main unmetalled and that this can be corrected by more extensive road development.

The Government of India then convened a Road-Rail Conference in Simla in the last week of April, 1933. This Conference was opened by His Excellency the Viceroy and was attended by three members of the Viceroy's Executive Council, the Chief Commissioner of Railways, representatives of the various Provincial Governments with their advisers, the Light Railways, the Indian Roads and Transport Development Association, the Inland Steamer Companies, the Standing Advisory Council for Railways and the Standing Committee on Roads. After three days of deliberation and discussion the Conference adopted the following resolutions :—

1. This Conference is of opinion that, in the general public interest, the time has come for increased co-operation and a more intelligent co-ordination of efforts between the various authorities and interests concerned, in the matter of :—

   (*a*) future Railway development
   and of
   (*b*) the future development of road communications, whether used for motor transport or other purposes

so as to secure a more comprehensive and uniform plan of general development than at present exists.

In areas where uneconomic competition between railway and road transport has been proved to exist, such increased co-operation and co-ordination may necessitate the adoption, *by mutual agreement,* of measures designed to reduce such uneconomic competition to the minimum compatible with the maintenance of healthy competition.

Any comprehensive or uniform plan of general development must sooner or later involve a gradual expansion of facilities for rural motor transport, complementary to the Railways and to other existing arterial forms of transport, but as internal district communications, apart from the main arteries, are largely controlled by local bodies any intra-provincial co-ordination of effort must necessarily in the first instance be a matter for the local Governments and legislatures, who, in such matters, should consult, and to the best of their ability, co-operate with the Railway and other interests concerned.

2. In order to ensure increased co-operation and more intelligent co-ordination of effort between the various authorities concerned, this Conference considers that the following measures would be justifiable :—

(*a*) The control of public service and goods motor transport should be regulated in the interests of public safety and convenience.

(*b*) The number of vehicles licensed to ply for hire should be restricted so as to prevent such competition between all forms of transport as may be contrary to the public interest.

3. This Conference considers that the statutory provisions which at present limit the operation of motor services by certain railways should be repealed.

4. This Conference recommends that the present regulations regarding public service and goods motor transport should be reviewed with the object of amending them so as to afford every encouragement to the development of rural services even to the extent in exceptional cases of granting of monopolies for limited periods.

5. This Conference considers that, in the interests of all concerned, a co-ordinated plan should be drawn up for the taxation of motor transport by the various authorities concerned.

6. This Conference considers that :—

(*a*) the present road development account should be continued for the duration of the present constitution and would urge that provision for its continuance be made in the new constitution;

(*b*) the class of roads to which the road development account should be applied, including the maintenance of roads constructed from that account, be reconsidered;

(*c*) in the present circumstances the most urgent need is an improvement in the efficiency and a reduction in the cost, of the transport of agricultural produce to markets and thence to the railways; future road development programmes should be framed accordingly.

7. This Conference considers that it is necessary to study the question whether such lack of balance as at present exists in the road systems will, if the means of development are restricted to revenue resources, be susceptible of correction either at all or at a rate consistent with the economic needs of the country; and accordingly recommends that a comprehensive plan should be drawn up with a view to examining the possibility of development of both main and subsidiary roads from loan funds within the limit of the resources available for maintenance.

8. This Conference considers that suitable machinery should be established at the Centre and in the Provinces to ensure adequate co-ordination between all forms of transport and their future development.

The Government of India are now considering the results of this Conference, and the further action that should be taken."

Indian Joint Stock Companies in 1932-33.—*Flotations.*—There has been a marked increase in the number of companies floated during the year, largely as a result of the boom in sugar factories. The following statement shows the position over a period of years:—

Year	Companies registered		Aggregate Authorised Capital		
	Number	Index number (pre-war year= 100)	Amount	Index number (pre-war year= 100)	Average authorised Capital per Company
			Rs.		Rs.
1913-14 (pre-war)	356	100	66,91,53,000	100	18,79,000
1927-28	626	176	17,57,04,000	26	2,81,000
1928-29	726	204	27,38,31,000	41	3,77,000
1929-30	839	236	62,55,18,000	93	7,46,000
1930-31 (*a*) ...	731	206	21,55,62.000	32	2,95,000
1931-32	768	216	29,97,60,000	45	3,90,000
1932-33	1,247	350	30,99,88,000	46	2,49,000

(*a*) Revised.

During the past year, increases in the authorised capital were noticeable under the following heads:—sugar manufacture (+Rs.6,27 lakhs); estate, land and building (+Rs.1,05 lakhs); engineering (+Rs.97 lakhs); investment and trust (+Rs.69 lakhs). The amount of authorised capital is a very unsafe guide to the actual state of affairs, as in the majority of Indian concerns the paid-up capital is only a small fraction of the authorised capital. Companies in India go to allotment on very small subscriptions.

Liquidations.—327 companies with a total authorised capital of Rs.21 crores, having ceased work, went into liquidation or were finally dissolved during the year 1932/33.

Indian Working Class Cost of Living Index.—Bombay.—After a heavy fall in 1930 and the first quarter of 1931, the index figure has remained fairly stationary with a slight downward tendency until at the 31st March, 1933, it stood at 106: (at the end of May it stood at 100 which represents the level of prices in July, 1914). The general index number thus fell 93 points below the high water mark (193) reached in October, 1920, and 9 points below the twelve-monthly average for the year 1932. The articles included in the index are cereals, pulses, other articles of foods, fuel and lighting, clothing and house-rent. The articles have been given the relative importance which each bears to the total all-India aggregate expenditure. No allowance is made for any change in the standard of living since July, 1914.

(All items : percentage increase over July, 1914).

	1928	1929	1930	1931	1932	1933
	Per cent.	Per cent.	Per cent.	Per cent.	Per cent.	Per cent.
January	54	49	47	17	10	9
February	48	48	44	13	10	6
March	45	49	41	11	11	6
April	44	48	40	11	8	1
May	47	47	39	10	7	0
June	46	47	40	9	7	—
July	47	48	39	8	9	—
August	46	49	36	8	9	—
September... ...	45	49	36	8	9	—
October	46	49	31	8	9	—
November	47	50	27	8	10	—
December	48	50	21	9	10	—
Yearly average ...	47	49	37	10	9	—

Patents and Designs.—In his report for the calendar year 1932, the Controller of Patents and Designs states that the total number of applications for patents filed during the year was 928 as compared with 940 in 1931. Of these, 269 originated in India and the remaining 659 came from abroad. Applications numbering 267 claimed priority under the reciprocal arrangements with the United Kingdom and other parts of the British Empire. The outstanding feature of the year was an increase of 30 per cent. in the number of inventions which originated in British India. The trend of inventions, arranged according to the broad heads under which they may be classified is dealt with by the Controller in the following terms :—

" **Electrical Industries.**—These industries were, as in previous years, responsible for a very large number of applications for patents, the number for the year under review being roughly one-eighth of the total number of applications filed during the year. Although most of the applications came from abroad, there has been a marked increase in the contribution made by Indian inventors in this highly technical sphere.

Transport.—This heading also claimed a large number of applications for patents. Matters connected with railway transport claimed larger attention than problems of road transport. The number of Indian inventions relating to permanent-way construction was as large as that of foreign inventions. The object aimed at by most of the inventors was either the prevention of creep or the attainment of smooth running of vehicles, or the maintenance of the gauge. Of the inventions relating to railway vehicles, a large number related to couplings and draw gear, and brakes. In the case of brakes, the automatic adjustment of braking-force to suit the load of train, was an object most noticeable.

There was a pronounced fall in the number of applications relating to railway signalling.

In the sphere of road transport, the improvement of road surfaces and road vehicles claimed the attention of inventors. In the former, attempts were made to evolve a type of road surface which will be resilient and will possess good wearing qualities. In the latter, inventive activity was more diverse.

Inventive activity in the sphere of lifting and loading materials, also deserves mention. The inventions here related to band conveyors and automatic speed control means for lifting cages, etc. In the latter case, the main object of inventors was to obtain more efficient control of the speed of a lift or the like, in such manner that the extent of the control may be made dependent not only upon the actual speed of the lift, but also upon its position during its travel. Of the inventions originating in India, one relating to a rope and pulley arrangement for lifting and lowering the locking barriers on railway lines may be mentioned.

Agriculture and Irrigation.—The number of inventions relating to these industries showed a slight increase, as compared with the previous years. Increased activity was noticeable mainly in connection with the treatment of the tea leaf and the production of fire-proof and granular India rubber, and in improvements relating to oil presses, manures, and lift irrigation. In connection with the last-mentioned subject, it is noteworthy that 19 out of 20 inventions relating to pumps and Persian-wheels originated in India. These inventions came from widely separated parts of the country, the Punjab contributing the largest number.

The attention of Indian inventors was also directed to floating pump installations for wells. A method of forming tube wells was also devised, the object aimed at being the prevention of the choking of the well strainer.

Textile Industry.—This industry showed a slight falling off in inventive activity compared with the preceding year. The fall occurred mainly in respect of inventions relating to the " charka " and other spinning machinery. This falling off was not due to any slackness on the part of Indian inventors interested in the textile industry. On the contrary, and as may be expected from the strenuous efforts that are being made in the country to improve the quality as well as the quantity of its cotton goods, the number of Indian inventions relating to this industry increased considerably.

As compared with the previous years, there was a fall in the number of applications relating to artificial silk.

Buildings and Structures.—In spite of a fall in the total number of applications for patents, noticed during recent years, the number of applications relating to constructional engineering has been steadily increasing; and the year under review recorded an increase of nearly 30 per cent. under this head. The contribution of Indian inventors, however, showed marked falling off. Among the objects aimed at by the inventors may be mentioned the standardization of the units used in the construction of bridges and like structures, and the improvement of hollow blocks used in the construction of floors and roofs.

A process which is claimed to be of commercial importance relates to the manufacture of cement from primary laterites. Large deposits of this ore are found in this country, but owing to their low aluminium and iron contents, they have not hitherto been considered of economic value.

Health and Sanitation.—The number of applications for patents relating to these subjects showed a sharp falling off, as compared with the preceding year. The fall was most noticeable in inventions relating to sanitary closets and disinfectants. A fair proportion of the inventions originated in India and related to flushing cisterns and to septic processes of treating sewage. The escape of noxious gases from sewers by means of a water seal arrangement was the theme of an Indian invention.

Fuel and Power.—The year under review recorded an increase in the number of inventions relating to fuel, but a fall in those relating to generation of power.

As regards designs, 1,223 applications were filed during the year as compared with 3,474 applications in 1931. The number of applications which originated in India was 412 as compared with 163 in 1931. Although there was a fall of nearly 65 per cent. in the total number of design applications filed in 1932, there was an increase of over 150 per cent. in the applications which originated in India. The Controller states that the great decline in the total number of design applications was mainly due to a fall in the number of applications for textile designs from 3,231 in 1931 to 962 in the year under review. These applications, which have always constituted the bulk of the design applications filed in India, came, as usual, mainly from the Calico Printers' Association, Ltd., who filed 703 applications. 187 designs relating to textile piecegoods originated in India. Nineteen applications were filed during the year in respect of embroidery designs, all of which came from Bombay. Among applications for registration of designs other than those relating to textiles and embroidery, 206 originated in India, 83 being from Madras for metal blocks used in printing and for printing type of Tamil alphabets, etc.; 42 from the Punjab for footballs, cricket and hockey balls, tennis rackets, etc.; 41 from Bengal for ceiling fans and lights, mirrors, vapour lamps, lamp stands, etc.; and 14, 12 and 5 from Delhi, the United Provinces and Burma respectively for miscellaneous articles such as metal spoons, locks, Persian-wheels, rickshaws, etc.

A thoroughly revised edition of the Patent Office Handbook was published during the year.

Civil Aviation.—I am indebted to Mr. F. Tymms, M.C., Director of Civil Aviation in India for the following comprehensive note on the progress of Civil Aviation in India during 1932/33 :—

REGULAR AIR SERVICES

INDIAN INTERNAL SERVICES

The most important development during the year was the inauguration, on the 15th October, 1932, of the Karachi-Bombay-Madras air mail service, operated by Tata Sons, Ltd. The Karachi-Delhi air mail service was operated throughout the year by the Delhi Flying Club. Both these services operated weekly in connection with the Imperial Airways service from London to Karachi. The total mileage of internal air mail services is now 2,010, made up as follows :—

Karachi-Delhi	...	...	690
Karachi-Madras	...	...	1,320
			2,010

(1) Karachi-Bombay-Madras Air Mail Service.—A ten year agreement between the Government of India and Messrs. Tata Sons, Ltd. has been effected for the operation of a weekly air mail service between Karachi and

Madras via Bombay connecting with the Imperial Airways service between Karachi and Europe; the service was inaugurated on 15th October, 1932. The stopping places on the route are Karachi, Ahmedabad, Bombay, Bellary and Madras. The mileage is given below :—

Karachi-Ahmedabad	...	385
Ahmedabad-Bombay	...	275
Bombay-Bellary ...	...	390
Bellary-Madras ...	...	270
		1,320

The service has been operated by two De Haviland Puss Moth aeroplanes capable of carrying a load of 350 lbs. of mail and cruising at 105 miles per hour. A De Havilland Fox Moth has now been added to the fleet. The service is operated by a European pilot manager and an Indian pilot. Provision has not been made for the carriage of passengers. The saving of time over the existing surface means of transport to and from Karachi is approximately as follows :—

Southbound.

Ahmedabad	...	...	1½ days.
Bombay ...	...	...	1¾ ,,
Madras ...	...	...	2¼ ,,

Northbound.

Madras ...	...	...	2¼ days.
Bombay ...	...	...	1½ ,,
Ahmedabad	...	...	1¼ ,,

The service was regularly operated up to the end of the period under review viz., 31st March, but on one occasion there was a delay of one day in the southbound service, due to unserviceability of machines, in addition to the delays in the southbound service caused by late arrival of the overseas service.

Negotiations for the extension of the Karachi-Madras air mail service to Colombo are in progress. As soon as agreement is reached, steps will be taken towards the commencement of the service which, it is hoped, will be inaugurated not later than October, 1933. The mileage of this section of the route is 425. No intermediate stops are contemplated and the service will probably be operated by seaplane or amphibian.

(2) **Karachi-Delhi Air Mail Service.**—The Delhi Flying Club continued to operate the air mail service between Karachi and Delhi throughout the year 1932. The agreement was renewed on the 31st December, 1932, the date of its expiry.

The route mileage of this service is as follows :—

Karachi-Hyderabad*	...	100
Hyderabad-Jodhpur	...	290
Jodhpur-Delhi ...	...	300
		690

*NOTE.—Hyderabad is a stopping place only on the westbound service.

The night stop at Hyderabad for connection with the southbound Punjab Mail train proved of considerable value, particularly during the summer when the Government of India are located in Simla. As from the 15th October, the mails for south India were carried by the Tata service and the arrangement for the Jodhpur-Falna connection ceased. In spite of the considerable weight of mails transferred from the Delhi service in consequence, the normal growth of air mail traffic operated to maintain the average load without decrease. The

only other operational change during the year was necessitated by the strong westerly winds during the summer months and the absence of night lighting organisation. To meet this difficulty, the schedule time of departure from Delhi was changed for that season from 09.30 to 07.30, which resulted in some minor late train connections being no longer available. Floodlights have now been provided and it is hoped that this will obviate the necessity for a change during the monsoon of 1933.

Although 104 services were operated, there were only three occasions when the westbound service failed to make connection with Imperial Airways at Karachi, two of these being due to forced landings on account of weather (sand-storms and thunderstorms) and one due to forced landing on account of mechanical failure.

The total weight of mail carried during the calendar year 1932 was 10,066 lbs.—an average of 99.6 lbs. per flight—compared with 8,295 lbs. in the previous year (Charter Service).

The service was operated with a De Havilland Gipsy II Moth with a De Havilland Puss Moth as relief machine. It is worthy of note that except on one occasion the service has been operated by an Indian pilot entirely trained by the Delhi Flying Club.

(3) **Projected Developments.**—Negotiations, which were carried on during the year for the establishment of an air mail service from Karachi to Moghal Serai to improve the service to Calcutta and in substitution for the Karachi-Delhi service, were abandoned in favour of a larger scheme to form part of an extension of the British air service to Australia. At the time of this report negotiations are still in progress, but it is expected that they will result in the establishment of an air service across India during 1933.

EXTERNAL AND FOREIGN AIR SERVICES

(1) **Imperial Airways London-Karachi Air Service.**—Throughout the year the service was operated to the same time table:—

Eastbound.			*Westbound.*		
London	...	dept: Saturday	Karachi	...	dept: Wednesday
Karachi:	...	arr: Friday	London	...	arr: Tuesday

The four-engined Handley Page 42 type of aeroplane was used throughout the year, and did much to establish an enhanced reputation for the comfort of the service.

Changes in the route, of considerable importance, took place during the year. These, while not directly the concern of India, were of interest to the Indian public.

(i) The most important change took place on the 1st October, 1932. Hitherto the service had been operated since 1929 along the Persian shore of the Persian Gulf, via Basra, Bushire, Lingeh, Jask and Gwadar. The permission of the Persian Government to operate along this route, which had been twice temporarily extended expired on the 30th September. The Persian Government had offered permission to operate a route via Central Persia through Ispahan, Yezd and Bam to Gwadar, but the route is entirely unorganised and on account of the high mountainous regions to be crossed, other physiographical difficulties and lack of transport facilities, it was deemed impossible of operation. In the meantime, with the co-operation of the Sheiks of Koweit, Bahrein and Sharjah, a route was organised along the Arabian shore of the Gulf and the service is now operated via those places and rejoins the original route at Gwadar.

(ii) In order to shorten the route across the Mediterranean, which had hitherto been operated via Cairo, duplicate flying boat services were operated for the African and Indian services throughout the year. As the result of this

change the Indian service operated via Athens, Cyprus and Galilee, where the change from flying boat to landplane was made for the flight to India, via Rutbah Wells and Baghdad. Whilst the change had excellent results during the summer, it was found that the intense storms and strong winds encountered in the neighbourhood of the mountains of the Asia Minor mainland, during the winter, combined with the long refuelling stages, had a very serious effect on the punctuality of the service, which gave rise to much criticism in India. To avoid these conditions during the bad period, a reversion to the original route via Athens and Alexandria was effected in January, 1933. An immediate improvement in punctuality was recorded.

The actual time taken by the service on flights eastbound and westbound, between London and Karachi is shown below:—

Eastbound		*Westbound.*	
No. of flights	Day of arrival	No. of flights	Day of arrival
36	7th	36	7th
6	8th	12	8th
7	9th	3	9th
4	10th	1	5th
53		52	

The scheduled day of arrival is the seventh day from the day of departure, which means that the actual elapsed time on the eastbound flight is approximately 6 days and on the westbound flight 6 days and eight hours.

The saving of time which this represents, as compared with the sea mail service, is, in some parts of India, considerably diminished by the absence of internal air mail services, and the lengthy train journey from Karachi. So far as South India is concerned, this disadvantage has been wholly removed by the inauguration of the Karachi-Madras air mail service.

There have been only comparatively slight increases in the weight of air mails carried on the service as compared with 1931, a result no doubt due in part to the trade depression.

To India.	1931 lbs.	1932 lbs.	*From India.*	1931 lbs.	1932 lbs.
Mails for India	45,632	45,111	Mails from India	40,474	42,407
Transit mails	840	1,766	Transit mails	2,592	4,299
	46,472	46,877		43,066	46,706

A point worthy of note is that the passenger traffic increased approximately 50 per cent. as compared with the previous year.

(2) K.L.M. (Royal Dutch Air Lines) and Cie. Air Orient (French) Air Services.—No new foreign services were inaugurated during the year under review. Both the Dutch service from Amsterdam to Batavia, and the French service from Paris to Saigon were operated throughout the year.

The number of flights carried out by the Dutch, (K.L.M.) and French (Compagnie Air Orient), services across India during the year 1932 was:—

	Eastbound	*Westbound*	*Total*
Dutch	52	52	104
French	43	43	86

From the 15th May, 1932, the French (Compagnie Air Orient) service was operated weekly in each direction; both the Dutch and French companies now run their services on a weekly basis. The Dutch service continued to be operated mainly by Fokker F XII and F XVIII aircraft, and the French services by Fokker F VII.

An important change of policy with regard to the use of these services for the carriage of Indian air mails was given effect on the 27th September, 1932. Hitherto they had carried mails to India and had delivered them to the Postal Authorities at the aerodrome of entry. Both services are now used for the carriage of air mails to countries east of India which are served by them, viz. Siam, Indo-China, Federated Malay States and Netherlands East Indies. In addition, the services are used for the carriage of air mails from Rangoon to Calcutta, which are consigned by the Delhi-Karachi service and thence by Imperial Airways to countries in the West.

IMPORTS AND EXPORTS BY AIR

There was a notable increase both in the number of aircraft cleared and in the value of imports and exports by air through Indian air ports.

The number of aircraft arrivals from abroad was 271 compared with 179 in 1931. The number of aircraft departures for abroad was 268 compared with 176 in 1931.

Compared with a value of Rs.1,50,601 merchandise imported in 1931, the value in 1932 was Rs.8,28,786 which included a consignment of diamonds valued at Rs.4,17,169. The imports of bullion and currency notes declined from Rs.1,06,801 to Rs.33,766.

The exports of merchandise were small, amounting to Rs.15,353 compared with Rs.4,286, but the exports of bullion and currency notes increased from Rs.14,54,790 in 1931 to Rs.24,58,563 in 1932.

FLYING CLUBS AND PRIVATE FLYING

(1) **Flying Clubs.**—On the whole good progress in the flying club movement was maintained, the only setback being the cessation of the activities of the Punjab Flying Club.

The flying clubs at Karachi, Delhi, Bombay, Calcutta and Madras continued operations on a subsidised basis. The Government subsidy was reduced, as compared with the previous year, by an amount of Rs.6,000 for each club, the basis of payment being as follows :—

	Rs.
Fixed subsidy	17,000
Bonus at the rate of Rs. 100 for each pilot trained *ab initio* and licensed. Maximum	2,000
	19,000

The Aero Club of India and Burma, which, in addition to its function of representing the Fédération Aéronautique Internationale in India, and its responsibility for the organisation of the sport of flying and air touring, is responsible for assisting Government with the administration of the flying clubs and co-ordinating their activities, also suffered a cut in subsidy from Rs.20,000 to Rs.16,000.

It may be noted here that it has been decided to impose further cuts in the subsidy for the financial year 1933-34. The flying club fixed subsidy wil be reduced to Rs.16,000 and the Aero Club subsidy to Rs.5,000. These cuts will provide funds for the payment of a subsidy to the United Provinces Flying Club in 1933-34.

The Cawnpore and Lucknow centres of the Delhi Flying Club continued operation throughout the year, and at the end of the year arrangements were made for their incorporation as a separate United Provinces Flying Club, which will receive a Government subsidy. The Club has received a good measure of private support. One aeroplane and a hangar for Lucknow have been donated while funds have been collected for a hangar at Cawnpore. Operations will continue at both centres. There is evidence that the establishment of this new club will arouse interest and enable occasional facilities for flying to be provided in the eastern United Provinces and Bihar.

The Jodhpur Flying Club, though handicapped by small membership and unable therefore to produce results comparable with those of the larger centres, continued to operate. Its value as an established flying centre, however, is out of proportion to the actual number of hours flown. The maintenance of Jodhpur as a flying centre for private flying and its development as a commercial aerodrome are due to the keen interest taken by His Highness the Maharajah. Towards the end of the year, two Monospar aeroplanes were purchased and arrangements made for the Club to provide agency and service facilities for this type of aircraft.

Despite lack of Government support, the Kathiawar Flying Club came into active existence in April, 1932. It was at first centred at Rajkot in Kathiawar, but later moved its headquarters to Ahmedabad, where it is established on the military landing ground. While it was established by individual initiative and is supported by private financial assistance, it is becoming organised as a membership club. Rajkot is still maintained as a branch centre. Two pilot instructors are employed.

Government support was withdrawn from the Punjab Flying Club on the expiry of the agreement in March, 1932. The Club ceased to operate, having no serviceable aircraft and no staff. Steps were taken to apply for the liquidation of the Club, and a Receiver was appointed in March, 1933. The initial steps in the formation of a new Club at Lahore have been taken and it is hoped that this will come into operation during 1933.

The Madras Flying Club have made arrangements to extend their activities to Trichinopoly. The Bengal Flying Club considerably improved the amenities of the Club by the provision of a new Club House on the Dum Dum aerodrome. The Bombay Flying Club which has always made a practice of extending its activities to surrounding centres continued to do so. During the monsoon, the whole of the operations of the Club were transferred to Poona.

The total membership of the flying clubs in India suffered a decrease on account of the demise of the Punjab Flying Club, which had a large membership. The figures were 1,538 in 1932 (December), as compared with 1,880 in 1931. There was an increase in the total number of aircraft owned by flying clubs from 20 in 1931 to 26 in 1932. There was also an increase in the total number of hours flown from 9,070 to 9,717. In view of the smaller number of pilots trained, this must be partly ascribed to greater activity in passenger flights, and hence represents a widening of interest in flying.

On account of the closing of the Punjab Flying Club and a temporary suspension of activities (for leave purposes) of the Karachi Aero Club, there was a decrease in the number of pilots trained *ab initio* from 113 to 85. Of this number 44 were Indians and 41 Europeans. Several of the clubs turned their attention to the advanced training of pilots who wished to take up flying as a profession. The following numbers were trained and obtained the appropriate licence :—

Pilot Instructors	1 (Madras)
B. Licence (full Commercial Pilot's Licence)	2 (Bengal 1) (Delhi 1)
A1. Licence (Limited Commercial Pilot's Licence)	5 (Madras 1) (Delhi 3) (Bombay 1)

In addition, a trainee of the Delhi Flying Club who has been taught *ab initio* and successively obtained his " A " and " B " licences, was given a grant of Government assistance, and sent to an instructor's school in England for a full course as a pilot instructor. He passed through the course with distinction and was thereafter granted a Pilot Instructor's Licence.

The total number of passengers carried by the flying clubs on taxi and short pleasure flights, was 4,972 compared with 3,247 in 1931.

The number of hours flown by privately owned aeroplanes was approximately 682.

There has been a natural increase in the number of personnel engaged by the flying clubs. The figures at the end of December, 1932, were :—

	Technical	Clerical	Menial	Total
Europeans ...	16	—	—	16
Indians ...	23	23	62	108
	39	23	62	124

During the year, there has been a large extension of the training facilities in aircraft engineering offered by the flying clubs. It has to be understood that the facilities are somewhat limited on account of a number of factors among which may be noted (1) that the clubs are primarily organised for flying training and the time of the fully qualified ground engineers available for instruction is limited; (2) that the clubs have not large and well equipped workshops; (3) that the types of aeroplanes and engines used are limited to two or three. Nevertheless, with these limitations in mind, it has been possible for mechanics employed by or apprenticed to the clubs to be trained to the standard necessary to qualify for a limited ground engineer's licence. During the year three ground engineers licences have been issued, after examination by the staff of the Directorate of Civil Aviation, to mechanics trained by the flying clubs. On the 31st December, 1932, the following numbers were under training :—

Premium apprentices ...	10
Free tuition	13

In addition, most of the Indian mechanics shown above as paid staff of the clubs are still receiving training to qualify for licences as ground engineers or extensions to their licences.

The annual conference of flying club representatives was held in Delhi on the 12th February, 1933, when a large number of representatives was present in connection with the Viceroy's Trophy Air Race. Matters of considerable importance were discussed and agreement reached in principle. The future support of the Aero Club of India and Burma, in view of the reduction of the Government subsidy, was decided as being of vital interest to the flying clubs and provisional measures to that end were agreed. The most important problem facing the clubs is that of making themselves self-supporting. Analysis of the operational results over a period of years shews that the total costs are in the neighbourhood of Rs.50 per hour flown, while the average income of the clubs from flying fees is approximately Rs.25. Uniform rates of flying fees, as between the different clubs, and a general increase in flying fees were agreed on as the first step towards the reduction of the disparity. These measures have now to be given effect to by the individual clubs.

(2) **International Flights.**—No international flights were carried out by Indians. The number of casual long distance flights by foreign and non-Indian aviators across India during the year 1932 was 26. These were distributed as follows :—

British	14
French	3
German	1
American	2
Australian	2
Canadian	1
Czechoslovakian ...	1
Spanish	1
Swiss	1

The 14 British flights included flights to England from India and back on an Indian registered aeroplane by a British pilot with an Indian engineer. There was one accident in connection with these flights, with unfortunately fatal results. This was the loss at sea near Rangoon of two British planters, Messrs. G. W. Salt and F. W. Taylor, residents of Malaya, who were flying to England. Having left Moulmein for Rangoon they failed to arrive. Extensive searches were instituted by the Government of Burma and the Government of India by land, sea and air but no trace of the aviators was found.

MISCELLANEOUS FLYING AND COMMERCIAL ACTIVITIES

(1) **Imports of Aircraft and Aircraft Material.**—The total value of the imports of aircraft and aircraft material into India during the year 1932 was Rs.3,19,064.

(2) **Air Survey and Photography.**—The only company carrying out this work in India is Indian Air Survey and Transport Ltd., of Dum Dum.

During the year 1932 work was continued on the programme of settlement mapping in the United Provinces and Bengal. The total area photographed during the year 1932 was 877.5 square miles compared with 2,712 square miles in 1931, but a considerable area of mapping work in addition was completed during the year. The flying carried out by the company during the year amounted to 181½ hours. Maps on a scale of 16 in. to the mile showing the boundaries of every field holding in an area of 1,500 square miles were delivered to the Government of the United Provinces. Photographs of an area of 850 square miles on the same scale, rectified for tilt and mounted on zinc sheets to avoid distortion, were delivered to the Government of Bengal preparatory to the preparation of settlement maps. The photography of another block of 750 square miles in the Rangpur district, Bengal, was completed in December. A survey of 30 square miles in the Dacca district was completed in April in connection with the planning of protection works along the Sityalakhia Khal at Narainganj. Towards the end of the year a number of tests were made to determine the suitability of Infra Red photography for high altitude work in India.

(3) **Indian States.**—Apart from developments in Jodhpur, referred to under the heading of the Jodhpur Flying Club, there is a marked indication that flying is being taken up by the Indian States both by the Ruling Princes themselves and for the general purposes of the State and private flying. The purchase of an aeroplane by H.H. the Rajah of Junagadh was referred to in last year's report.

H.H. the Maharajah of Patiala, who has long been interested in flying, has purchased a Monospar and engaged a pilot, and further aviation developments are contemplated in the State.

The Alwar State purchased a Puss Moth and engaged an Indian pilot to improve communications within the State during the unrest which prevailed early in 1933.

The Hyderabad State, early in 1933, appointed a Civil Aviation Board, and steps were taken to select and acquire land for a civil aerodrome at the capital and to form a flying club which will commence operations during 1933. A programme for the development of commercial aviation within the State is being worked out.

AIRWORTHINESS

In a country like India, with no manufacturing organisation, a problem of no small difficulty is encountered in the settlement of the standard of airworthiness. To establish an independent standard or to verify independently an adopted standard would be impossible without a large technical organisation such as exists in the Air Ministry Airworthiness Department or the Aeronautics Branch of the American Department of Commerce. Nor it is necessary, while aircraft are not designed and manufactured in India, to set up such an organisation. The absence of it, however, makes it necessary to adopt the standard of another country and to rely on the organisation of that country. Fortunately this has been possible by adopting the United Kingdom standard, and the greatest help has been, at all times, received from the Air Ministry. Indian certificates of airworthiness are issued for all aircraft which have satisfied the United Kingdom airworthiness requirements.

In adopting the Air Ministry standard, it follows that other standards which have not been proved to be the equivalent of that standard cannot be accepted. The standards worked to by certain other countries are known to be sound, but to differ from the Air Ministry standard. It requires special expert staff to determine the differences and the modifications in design necessitated thereby. Such a task could not be attempted in India and it is, therefore, necessary that any foreign built aircraft, to obtain a certificate of airworthiness in India, must first be accepted for the issue of a certificate of airworthiness by the Air Ministry.

Determined efforts are being made in international negotiations to obtain, as far as possible, a unification of standards of airworthiness. The International Commission for Air Navigation have, for some years been engaged in the formulation of an international minimum standard. In the meantime, however, negotiations and investigations, which were launched at the Imperial Conference in 1930, are proceeding towards the adoption of an Empire standard of airworthiness, common to all countries in the British Empire. Its adoption will go a long way to ease the situation in India, since aircraft manufactured in any country of the Empire, and exported with a certificate of airworthiness may then be accepted as complying with the Indian adopted standard. The remainder of the problem is one of maintenance which is within the scope of the Indian organisation.

Negotiations are also proceeding with the United States of America to settle the conditions of mutual recognition of American and British certificates of airworthiness. The settlement of these terms will make it possible to import American built aircraft for commercial work in India. Pending agreement and the determination of the conditions, foreign built aircraft can only

be used in India for private flying on which there is no restriction. In the case of any particular aircraft, however, it may happen that the type has already been accepted for airworthiness purposes by the Air Ministry in the United Kingdom or an Indian certificate of airworthiness may be obtained by first submitting the aircraft to investigation by the Air Ministry and obtaining a United Kingdom certificate of airworthiness.

During the year 1932-33, 24 applications were received for issue or renewal of Certificates of Airworthiness for public transport aircraft and 19 for issue or renewal of Certificates of Airworthiness for private aircraft. The number of applications relating to private aircraft represents a considerable increase over previous years. This is satisfactory as indicating that private owners appreciate the value of inspection and proper maintenance of their aircraft, as the principal factor in ensuring safety and obviating accidents from engine failure or structural failure of the aircraft.

APPROVED FIRMS

The approved distribution procedure has been developed and extended. The following firms were approved up to the end of 1932 as distributors of aircraft parts, materials, etc. :—

Name of Firm.	*Purpose for which approved.*
1. De Havilland Aircraft Co. Ltd., Karachi.	Supply of aircraft components and materials.
2. Indian Air Survey and Transport Ltd., Dum Dum.	Ditto.
3. Messrs. Hoosenbhoy Karimji & Sons, 170, Napier Road, Karachi.	Supply of aeronautical publications.
4. A. R. Haseler, Bombay.	Supply of aircraft components and materials.
5. French Motor Car Co. Ltd., Calcutta.	Supply of aircraft instruments.
6. The Dunlop Rubber Co. (India) Ltd., Calcutta, Bombay and Madras Branches.	Supply of aircraft tyres and tubes.
7. Geo. Miller & Co., Ltd., Engineers & Agents, 7, Hastings Street, Calcutta.	Supply of aircraft glue.
8. Martin & Co., Department Bosch Service, 58, Free School Street, Calcutta.	Supply of aircraft magneto spares and for repair and overhaul of aircraft magnetos and magneto parts.
9. Messrs. Lucas Indian Service, Ltd., 2, New Queens Road, Bombay.	To fit maker's approved aircraft magneto spares (except rewinding of armatures).

Wireless Telegraphy.—I am indebted to the Joint General Manager of the Indian Radio and Cable Communications, Co., Ltd., for the following interesting note with regard to the development of wireless communications in India during the year :—

Beam Telegraph Service between India and England.—" During the year under report, i.e., 1931-32, the main activities of the Indian Radio and Cable Communications Company—originally known as the Indian Radio Telegraph Company Ltd., included the Wireless Beam Telegraph Service between India and England, and the following comparative figures of the traffic exchanged between the two countries by means of this Service offer interesting information :—

Total sent and received words.

1928	1929	1930	1931
114,87,741	129,32,764	124,95,434	127,45,952

As can be seen from the above figures, in spite of the continued trade depression, the traffic handled over the Beam Service during the year 1931 was nearly 2 per cent. in excess of that handled during 1930.

Cable and Wireless Merger.—One of the most important developments in the history of the Company was the merger of Cables and Wireless. The Indian Radio Telegraph Co., Ltd., entered into an agreement with the Imperial and International Communications Ltd., on the 19th February, 1932, whereby the Indian Company took over the control of the Cables both at Bombay and Madras from the 1st July, 1932, and assumed its present name as from the 1st May, 1932. This unified control of cables and wireless has naturally been of very great advantage to the business as the traffic can now be handled more expeditiously than before and the cable rates have been brought down to the level of wireless.

Beam Service to Japan.—During the year, the construction work in connection with the India-Japan Beam Telegraph Service was completed and after satisfactory preliminary tests were carried out, the service was formally opened to the public on the 11th January, 1933, by the Hon'ble. Sir Frank Noyce, Kt., C.S.I., C.B.E., I.C.S., Member of the Governor-General's Executive Council in charge of the Department of Industries and Labour. The opening up of this new channel has been a welcome feature of the commercial life of this country and the results achieved so far have been very satisfactory.

Beam Telephone Service.—The installation work in connection with the Wireless Telephone Service between India and the United Kingdom was also carried out during the year in question and the same was completed by the end of 1932. After satisfactory preliminary tests were carried out in conjunction with the British Post office, the Service was opened to traffic on the 1st May, 1933, by His Excellency the Governor of Bombay. Extensive alterations and reconstruction of the land-line trunks were necessary for the efficient working of this Service and hence in the beginning the facilities of this Service were restricted to Bombay and Poona only. The question of the land-lines has been engaging the urgent attention of the Posts and Telegraphs Department and the Service is being made available to other important cities of India as and when feasible. Arrangements to link India through this Service with other parts of the world are also in progress. As was expected, the Service has proved to be of great benefit for business and social purposes and the results achieved so far are encouraging.

The aim of the Company is to afford the public a cheap, accurate and speedy means of communication and in furtherance of this policy negotiations were carried on with the Indian Government for obtaining facilities for the more rapid distribution of traffic over Inland lines. The Company is now working the Teleprinter System between Bombay and Calcutta over one of the channels of the Bombay-Calcutta Carrier System and this circuit carries on an average 1,000 messages a day to and from Calcutta at high speed.

The other activities of the Company include :—

Point to Point Wireless Services.—During the year, short wave wireless transmitters have been installed at various headquarters for the Railway Board, which stations are giving complete satisfaction. Further developments are expected in this direction as the Railway Board have found this system to be much more economical than the renting of land lines. Such short-wave stations if equipped with telephony also, would do away with the necessity of separate telephone lines between such points.

Wireless Beacons and Direction Finding Stations.—During the year under report, the Bombay Port Trust Authorities have installed a Marconi Wireless Beacon at Kennery Island which is giving every satisfaction, and from hundreds of observations which have been made the Beacon is proving of considerable benefit to shipping. It is anticipated that this first Wireless Beacon on the Indian coast will be the forerunner for several more such stations. Negotiations with regard to the installation of two more Beacons, one at Calcutta and one at Karachi, are proceeding.

Aircraft Services.—With the development of aerial navigation in India, wireless will play a very important part. The Tata Air Service are equipping two of their present machines with Marconi Aircraft apparatus for the use of wireless telephony with Madras, Santa-Cruz (Bombay) and Karachi Stations. It is anticipated that with the benefit to aerial navigation, great developments will be made both in installing aeroplanes with wireless equipment and suitably equipping Aerodrome Stations for Direction Finding and Meteorological purposes.

Public Address Equipment.—Consequent on the successful demonstrations carried out by the Company during the last few years, the demand for the use of the Company's Public Address Equipments is steadily increasing for public address functions of all kinds and also for band amplifications. Several complete sets of Public Address Equipments which have been sold to the Indian States are giving every satisfaction.

Future Developments.—Apart from inter-Continental telegraphic services, there is a vast field for the development of wireless in India. It is admittedly suited for Police outposts, for coastal communication with lighthouses and lightships, and as an aid to navigation to both ships and aeroplanes with the anticipated developments of commercial aviation in India for aerodromes and meteorological purposes, it is anticipated that there will be considerable developments on these lines in India in the near future.

In connection with the Wireless Beam Telephone Service referred to above, developments can be expected in transmitting broadcasting programmes over this channel so that such programmes can be broadcasted by the local stations in India without suffering the distortion and fading when picking up a short-wave broadcast programme by omnidirectional methods."

Broadcasting.—The Indian State Broadcasting Service is directly administered by the Government of India through two Directors of Broadcasting stationed respectively at Calcutta and Bombay. The financial losses referred to in my last report are gradually being reduced, but, as the Commerce Member stated, when introducing the bill on April 4th, 1932 to increase the import duty on domestic wireless apparatus to 50 per cent. *ad valorem* in order to provide funds for the service, there is still a deficit of Rs.60,000 to be covered. The total number of broadcast receiver licenses issued during 1931/32 was 8,018 as compared with 8,079 in the previous year. Licenses for importing wireless apparatus were issued or renewed in 614 cases. The number of licenses for

fixed stations was 140 and for mobile stations (ships) 29. Small licensed broadcasting stations in Madras and Lahore continued to work experimentally. They are, however, not connected with the Indian State Service. There is no doubt that the number of receiver licenses in India, although still relatively small, is growing at a satisfactory rate, and considerable advance has been made since the autumn of 1932 due to the inauguration in December, 1932, of the Empire short-wave broadcasting service, which was followed, early in 1933, by the inauguration of short-wave transmission from the Indian stations so that the Empire service may be relayed to local listeners.

The Empire service provided by the British Broadcasting Company is becoming increasingly appreciated, but is greatly interfered with by atmospherics during certain periods of the year. The service, being in its infancy and still to some extent experimental, will doubtless be greatly improved during the present year. There is probably no portion of the Empire where the broadcast of specially selected items of news, speeches, music and educational talks of all kinds is more keenly appreciated. The Empire wireless broadcast has opened up a new vista of amusement and instruction alike to Europeans and educated Indians. It is an Imperial link of the highest importance. No effort should be spared to make it as efficient as possible from the technical aspect and as interesting and instructive as it can be made from the point of view of the programmes transmitted.

The Indian Census 1931.—In the report of 1930/31 I commented upon the phenomenal increase of 32½ million people representing an addition of over 10 per cent. to India's population in the decade since 1921, and pointed out that, from an economic standpoint, a steady increase of three millions per annum, three-quarters of whom are directly supported by the land, is likely to raise problems of the first magnitude. Unless rapid and successful efforts are made to increase the agricultural yield of the country, the pressure for subsistence will become increasingly acute. While it is true that the yield per acre of India's staple crops is a very low one, the intense conservatism of the ryot constitutes a serious obstacle to improvement.

Since this was written, the abstract of tables giving the main statistics of the census has been published and it may be considered appropriate to close this chapter with a few vital statistics drawn from the Census Commissioner's most illuminating survey. The total population of India returned at the census is 352,837,778, of whom 289,491,241 reside in British India and 63,346,537 in the Indian States. The number of males is 181,828,923 and females 171,008,855 giving a proportion of 940 females per 1,000 males. The mean density of population per square mile in the whole of India is 195 varying from a maximum of 814 in Cochin State, and in British India of 646 in Bengal, to a minimum of 5 in the

Baluchistan States and 9 in British Baluchistan. Eleven per cent. of the population live in towns. The decade 1921-31 was free from famine, epidemic, earthquake or widespread flood with the result that the improvements in social hygiene, medical services, sanitation and public health organisation have borne full fruit and the natural increase was 10.6 per cent., which is comparable with the decade of 1881-1891, when similar conditions obtained and when the rate of increase was 9.6 per cent.

The subjoined statement gives the chief cities of India and their population. The variations per cent. since 1921 in the case of the nine largest cities are :—

Calcutta (including Howrah and Suburbs)	+11.9
Bombay	— 1.2
Madras	+22.8
Hyderabad	+15.5
Delhi	+44.3
Lahore	+52.5
Rangoon	+17.1
Ahmedabad	+14.5
Bangalore	+29.0

The reduction in Bombay City is noteworthy. It is partly due to the depression in the cotton industry but probably also to failure to complete returns, as the census coincided with the boycott movement. The growth of Lahore as an industrial and residential city is remarkable. Similarly, the development of the new capital at Delhi resulted in a great increase. The expansion of the Cotton industry in Ahmedabad, by contrast with the decline in Bombay, gave an expansion of 14½ per cent. :—

Town.	*Population.*	*Town.*	*Population.*
Calcutta*	1,485,582	Srinagar	173,573
Bombay	1,161,383	Patna	159,690
Madras	647,230	Mandalay	147,932
Hyderabad	466,894	Sholapur	144,654
Delhi	447,442	Jaipur	144,179
Lahore	429,747	Bareilly	144,031
Rangoon	400,415	Trichinopoly	142,843
Ahmedabad	313,789	Dacca	138,518
Bangalore	306,470	Meerut	136,709
Lucknow	274,659	Indore	127,327
Amritsar	264,840	Jubbulpore	124,382
Karachi	263,565	Peshawar	121,866
Poona	250,187	Ajmer	119,524
Cawnpore	243,755	Multan	119,457
Agra	229,764	Rawalpindi	119,284
Nagpur	215,165	Baroda	112,862
Benares	205,315	Moradabad	110,562
Allahabad	183,914	Salem	102,179
Madura	182,018		

* With Suburbs and Howrah.

The above city figures include details for Cantonments (e.g., Lahore City =Municipality+Cantonment), and those for Delhi include Shahdara, New Delhi and Cantonment.

The table with regard to occupation or means of livelihood is most interesting. The proportion of the working population engaged in agriculture is 66.4 per cent. Those engaged in trade number 5.13 per cent., in industries 9.95 per cent. and in transport 1.52 per cent. The report states that " in 1921, the persons employed in mines, plantations and organised industrial establishments having ten or more employees numbered 2,681,125 out of a total of 23,236,099 persons engaged in mines, industry and transport. The total number under these three heads comes to 25,005,280 in 1931 and though no general return has been obtained from industrial establishments employing organised labour, it is believed that the maximum number of organised employees, corresponding to the 2½ million of 1921, cannot exceed 5,000,000 and if the rate of increase be the same as in the previous decade the figure will be about 3,250,000, of which 1,553,169 are employed in establishments governed by the Factories Act." The following are the figures :—

[TABLE]

Occupation	Number of workers, i.e., Earners and Working dependants.		
	Persons	Males	Females
INDIA	154,390,612	105,562,494	48,828,118
PASTURE AND AGRICULTURE ...	102,454,147	73,763,185	28,690,962
*Landlords	3,257,391	2,419,817	837,574
Cultivating Owners	27,006,100	22,469,143	4,536,957
Cultivating Tenants	34,173,904	26,896,149	7,277,755
Agricultural Labourers	31,480,219	17,110,466	14,369,753
Others	6,536,533	4,867,610	1,668,923
FISHING AND HUNTING	1,308,292	1,145,817	162,475
MINES, QUARRIES, SALT, ETC. ...	346,000	259,583	86,417
INDUSTRY	15,361,933	10,807,507	4,554,426
Textiles	4,102,132	2,531,407	1,570,725
Dress and Toilet	3,380,824	2,565,594	815,230
Wood	1,631,723	1,289,419	342,304
Food Industries	1,476,995	706,281	770,714
Ceramics	1,025,030	727,759	297,271
Building Industries	618,527	528,344	90,183
Metals	713,070	659,635	53,435
Chemicals, etc.	603,504	400,985	202,519
Hides, Skins, etc.	312,074	265,904	46,170
Other Industries	1,498,054	1,132,179	365,875
TRANSPORT (including Postal, Telegraph & Telephone Services)...	2,341,406	2,099,198	242,208
TRADE	7,913,797	5,785,816	2,127,981
Hotels, Cafés, etc., and other trade in foodstuffs	4,326,737	2,850,904	1,475,833
Trade in Textiles	458,902	411,315	47,587
Banks, Exchange, Insurance, etc.	329,482	292,739	36,743
Other trades	2,798,676	2,230,858	567,818
ARMY AND NAVY	318,036	316,300	1,736
AIR FORCE	1,863	1,838	25
POLICE	521,675	516,415	5,260
PUBLIC ADMINISTRATION	995,284	962,741	32,543
PROFESSIONS AND LIBERAL ARTS...	2,310,141	1,986,260	323,881
Religion	1,026,894	907,163	119,731
Instruction	501,652	443,239	58,413
Medicine	318,581	222,536	96,045
Law	133,089	132,591	498
Others	329,925	280,731	49,194
DOMESTIC SERVICE	10,858,254	2,094,487	8,763,767
ALL OTHERS	9,659,784	5,823,347	3,836,437

* Includes all non-cultivators taking rent in any form, many of whom are intermediate tenure holders.

In the classification of civil condition and age, almost half the males and a little above one-third of the females are unmarried, 46.7 per cent. of the males and 49.3 per cent. of the females are married, while 5.4 and 15.4 per cent. respectively are widowed. The relative proportions of the population under 15 years, aged 15 to 50, and 50 and over are 39.9, 50.5 and 9.6 per cent.—a striking commentary on the brief average span of Indian life.

The classification as regards literacy shows that the total literate population of India including children is 23,962,279 males and 4,169,036 females. The number, per thousand of the population, aged five and over, who can read and write any language is males 156, females 29, the corresponding proportions (of all ages) in 1921 having been males 122 and females 18, and in 1881 males 81 and females 3. The proportion who are literate in English is males 25 and females 3 per thousand, of 20 years and over only. The total illiterate population in 1931 was 156,243,305 males and 165,384,698 females.

The following statement summaries the population returned under the main religions and the variations since 1921 :—

	Proportion per 1,000 of population.	Percentage of increase or decrease in actual number since 1921.
Hindu	682	+10.4
Muslim	222	+13.0
Buddhist	36	+10.5
Tribal Religions	24	−15.3
Christian	18	+32.5
Others	18	+38.0

The numer of Europeans in India is 168,134 (males 117,336, females 50,798) and of Anglo-Indians, 138,395 (males 71,247, females 67,148). The figures of Europeans show a decrease in India proper of 10,883 since 1921 and of 3,309 since 1901. There has, however, been a rise of 2,986 persons, 1,585 males and 1,401 females, in Burma since 1921. This increase is partly to be attributed to the presence of tourists in greater numbers in 1931.

CHAPTER II

A STUDY OF THE OTTAWA TRADE AGREEMENT FROM THE STANDPOINT OF THE UNITED KINGDOM EXPORTER

The outstanding event of the past year has been the conclusion and ratification of the Ottawa Trade Agreement between representatives of His Majesty's Government in the United Kingdom and an Indian delegation including members of the Indian Legislature and other leaders of Indian political and economic life. This momentous agreement gives effect, for the first time in the history of the trading relations of the two peoples, to the principle of Imperial Preference and thereby inaugurates a new era in Indo-British economic relations which, it is hoped, will strengthen the bonds of mutual interest and will contribute to the material welfare of the two nations.

At the outset, it will be as well to record the past attitude of the Government of India towards the general question of Imperial Preference so that the peculiar difficulties of the situation may be appreciated. The question of the adoption by India of some form of Imperial Preference was examined with great care by the Government of India during the Viceroyalty of Lord Curzon and their conclusions were set forth in their despatch to the Secretary of State dated October 22nd, 1903. It was then found that whereas approximately three-fourths of the total imports into British India came from the British Empire (between 70 and 80 per cent. of which were articles wholly or mainly manufactured) only 47 per cent. of Indian exports were taken by the British Empire in return (including exports to Hongkong and the Straits Settlements which largely represented goods destined for China and Japan) of which only some 30 per cent. were manufactured goods, the remainder including mainly foodstuffs and raw materials. The Government of India concluded that while it would be possible for India to confer substantial advantages on British manufactured goods by the grant of preferences, it was difficult to see what corresponding advantages she would obtain in the case of her foodstuffs and raw products, which are usually admitted free of duty, and for which the possibilities of preference are limited. Moreover, the Government of India then attached great importance to the risk of retaliation by those foreign countries which took the bulk of Indian's exports and whose exports to India would be partially excluded by a system of Imperial Preference.

Since 1903, however, there has been a serious relative decline in the importance of the British Empire in the trade of India. In

1929/30, the last fiscal year before the recent boycott of British goods was inaugurated, the British Empire supplied only 52 per cent. and the United Kingdom 43 per cent. of India's imports, while the Empire, in the same year, took 36 per cent. and the United Kingdom 22 per cent. of India's exports including re-exports. Even as early as 1920 a Committee of the Imperial Legislative Council reported that in view of the world demand for Indian raw materials there was no danger to be feared on the score of retaliation by foreign countries and that " the apprehensions of Lord Curzon's Government in respect of this particular aspect of the question would in present circumstances be unreal."

In 1921, the Indian Fiscal Commission was appointed " to examine with reference to all the interests concerned the Tariff Policy of the Government of India, including the question of the desirability of adopting the principle of Imperial Preference, and to make recommendations." After exhaustive enquiries, the Commission summarised their recommendations as follows:—

(*a*) That no general system of Imperial Preference be introduced; but

(*b*) That the question of adopting a policy of preferential duties on a limited number of commodities be referred to the Indian Legislature after preliminary examination of the several cases by the Tariff Board.

(*c*) That, if the above policy be adopted, its application be governed by the following principles:—

(i) That no preference be granted on any article without the approval of the Legislature.

(ii) That no preference given should in any way diminish the protection required by Indian industries.

(iii) That preference do not involve on balance any appreciable economic loss to India.

(*d*) That any preferences which it may be found possible to give to the United Kingdom be granted as a free gift.

(*e*) That in the case of other parts of the Empire preference be granted only by agreements mutually advantageous.

No action was taken by the Government of India on these recommendations as, meanwhile, the political opposition had become so strong that there would not have been any chance of even a modified form of Imperial Preference being approved by the Indian Legislature.

The question of Imperial Preference was raised at each of the Imperial Conferences in 1923, 1926 and 1930, but on all three occasions the representatives of India explained the difficulties which stood in the way of the adoption of a general policy of Imperial Preference and frankly intimated that India was not prepared to introduce such a scheme. It may, therefore, be asked what induced the Government of India in 1932 to appoint a delegation to the Ottawa Conference with the express object of concluding a preferential trading agreement with the United Kingdom. The answer is to be found in the passing by His Majesty's Government in the United Kingdom of the Import Duties Act of 1932, which imposed a 10 per cent. rate of duty on

all commodities not subject to duty under earlier Acts or not included in the Free List appended to the Act, and further empowered His Majesty's Government in the United Kingdom, on the advice of the Import Duties Advisory Committee, to increase the rates of duty above 10 per cent. The Act provided that products of the Dominions and India were exempted from the operation of the new duties up to the 15th November, 1932, but then became subject to them unless before that date an order in Council had been made exempting them for a further period. Products of the non-self-governing Colonies were, however, exempted unconditionally from all duties under the Act. At the time of the introduction of the Bill in Parliament an announcement was made by His Majesty's Government in the United Kingdom that the question of reciprocal tariff arrangements between the United Kingdom on the one hand and the Dominions and India on the other hand would be discussed at the impending Imperial Economic Conference at Ottawa, and that, if satisfactory agreements were concluded, the necessary orders in Council would be made for the continuance of the exemption of their products from duty, but gave no guarantee of the continuance of such exemption in the absence of agreement.

As the Indian delegation state in their report:—

" The Import Duties Act and the announcement of His Majesty's Government created an entirely new situation for India. It was no longer a question of what India stood to gain from the adoption of a general scheme of trade preferences throughout the Empire. The tariffs of the various Dominions already contained provisions for the grant of preferences in some cases to the manufactures of the United Kingdom, and in others to goods originating in any Empire country, the United Kingdom had now fully committed itself to the adoption of a reciprocal policy, and this example might be expected to be followed by similar action in important parts of the Colonial Empire and by the adoption of the principle of reciprocity by Dominions which had hitherto conceded unconditional preference. The issue so long debated whether there should be a general scheme of trade preference within the Empire was now settled and the question which those responsible for India's fiscal interests had to face was whether India was justified in maintaining her former attitude of aloofness, whether in fact she could afford to stand out of an agreement which seemed likely to include most, if not all, Empire countries other than herself. *It was no longer a question of what India stood to gain but of what she stood to lose.*"

The appointment of the Indian delegation to Ottawa was the result of the Government of India's decision that in all the circumstances it was impossible for India to stand aloof and that the possibility of concluding a satisfactory trade agreement must be fully explored. On April 4th, 1932, the Commerce Member announced in the Legislative Assembly that " The Government of India have agreed to send a delegation to the Imperial Economic Conference which will meet at Ottawa in July next. They have been informed that the principal item on the agenda of the conference will be the discussion of a policy of trade agreements between different countries of the Empire and they have been

invited in particular to consider the question whether, having regard to the new tariff policy of His Majesty's Government in the United Kingdom, Great Britain and India should enter into a tariff agreement embodying a reciprocal preferential regime so designed as to benefit the trade of both countries. The Government of India have accepted this invitation and His Excellency the Viceroy has, with the approval of the Secretary of State for India, appointed the following gentlemen to represent India at the Conference.

Leader :—Sir Atul Chatterjee.
Members :—Mr. (now Sir) R. K. Shanmukham Chetty,
Sir Padamji Ginwala,
Seth Haji Abdoola Haroon,
Sahibzada Abdussamad Khan, and
Sir George Rainy.

If the conclusion of a trade agreement is recommended as a result of the Conference, any changes in the tariff which it may involve will be duly placed before the Legislature for its approval. The Government of India have no wish to put any such changes into effect unless the Legislature is satisfied that they are in the interests of India."

The Indian delegation were welcomed in London on May 24th by the Lord President of the Council. Regular negotiations were commenced the following day with a small committee of United Kingdom official advisers presided over by Sir Horace Wilson, G.C.M.G., K.C.B., C.B.E., Chief Industrial Adviser to His Majesty's Government. These conversations were continued in London and at Ottawa and the details, both with regard to the tariff treatment of Indian goods in the United Kingdom and of United Kingdom goods in India were settled by this Committee and subsequently confirmed by the United Kingdom delegation of Cabinet Ministers.

Limitations on the ability of the Government of India to enter unreservedly into any scheme of preferential tariffs. — In order to understand the reasons why it was possible to secure a preferential duty on certain articles of import into India and not on others, it is necessary to appreciate the limitations on the freedom of the Government of India to grant concessions in respect of important classes of goods. These limitations arise from the past history of the country, from the economic conditions prevailing there, from the policy which these conditions render necessary, and from the stage of industrial and constitutional development which India has reached. As the report of the Indian delegation to Ottawa is the only available document which deals with the question, one cannot do better than quote from it :—

" The Indian import tariff is primarily a revenue tariff which imposes a moderate uniform rate of duties on all commodities, subject, however, first to the levy of a much higher duty on particular articles, second to exemption from

duty or admission at low rates of other articles where the national interests require such concessions, and finally to the imposition of protective duties when it is established that the encouragement of these industries is justified in the national interest. The higher rates of duty call for no comment; the exemptions from duty and the low rates fall into one or the other of the following categories :—

(1) Commodities of importance to the cultivator, such as agricultural implements and manures.

(2) Particular medicines such as quinine, the wide distribution of which is important from the point of view of health.

(3) Commodities a duty on which might operate as a tax on knowledge, such as printing machinery and appliances.

(4) Commodities a duty on which might retard a desirable development still in its infancy, such as aircraft and radio appliances.

(5) Commodities a duty on which would impede the development of industries, such as power machinery, raw materials and dyes.

(6) Commodities a duty on which might appreciably increase the cost of railway transport, such as locomotives and many other classes of railway material.

In each case the exceptional treatment of the articles concerned was based on broad grounds of national policy deliberately adopted which, it was held, must outweigh purely revenue considerations.

It appeared that the limits within which the grant of preferences might be considered were for the most part fixed by the principles of India's tariff policy outlined above. The classes of article subject to the ordinary rate of duty, or to higher rates, presented no special difficulties, but it was quite otherwise with the commodities on the Free List, and those subject to specially low rates. Here any material departure from the accepted policy could be justified, if at all, only on entirely exceptional grounds. Moreover, in some cases the articles which at present pay a low rate would normally be free of duty and have been taxed only on account of overriding financial exigencies. The protective duties also stood in a class apart. The instructions we received from the Government of India precluded the acceptance of any proposal which would have the effect of impairing the protection afforded to an Indian industry by an Act of the Indian Legislature. Two of these Acts, it is true, provide for the imposition of lower rates of duty on cotton piece-goods and on certain classes of iron and steel made in the United Kingdom than on similar goods made elsewhere. But the duties on iron and steel were fixed after a full investigation by the Tariff Board and will come under review in the statutory enquiry of 1933, while the duties on cotton piece-goods had already been referred to the Board before our negotiations commenced. In both cases the lower rates of duty on British goods were adopted not in the interests of the United Kingdom but in the interests of India and in pursuance of the policy of Discriminating Protection. These rates of duty could not, we were satisfied, become the subject of bargaining between ourselves and the British Delegation, and any modification in them must, we felt, be postponed until the Government of India had before them the considered recommendations of the Tariff Board.

The field within which the grant of preferences could be considered was therefore, we held, limited to the classes of commodities which are subject to the ordinary or to a higher rate, with the addition, however, of those classes of iron and steel which being excluded from the protective scheme have continued to be dutiable under Part IV of Schedule II of the Indian Tariff Act. Before the policy of Discriminating Protection was adopted, most classes of iron and steel were subject to duties somewhat below the ordinary rate. In 1924, however, all the more important classes became subject to protective duties, and since that date the special treatment of the residuum which remained in Part IV has ceased to be a matter of real importance. Within the

field indicated, we felt that in considering the amount of any preference which would be granted due regard must be had to the importance of the Customs head as a source of Central Revenues and the desirability of keeping the ordinary rate of duty within moderate limits. A high rate of preference might necessitate the permanent retention of the duties at an undesirably high level if the necessary revenue was to be obtained."

The above extract will explain the reasons why it was not possible to obtain at the present time preferential duties on such important items in the United Kingdom's export trade to India as machinery, railway material, fertilisers and dyestuffs.

The Ottawa Trade Agreement.—The Agreement was signed at Ottawa on August 20th, 1932. It will be convenient to analyse the Agreement* according to the main groups of United Kingdom export trades which are affected:—

Cotton and Artificial Silk Textiles.—In view of the fact that the Indian Tariff Board, at the time of the Conference, were engaged on an inquiry into the claim for protection of the Indian cotton industry, the Indian delegation felt that it would not be right to commit the Government of India until the Tariff Board Report had been considered. In Article 11 of the Agreement, however, they stated definitely that " the Government of India will consider, in the light of the findings of the Tariff Board, the protective duties to be imposed on goods of cotton and artificial silk according as they are made in the United Kingdom or elsewhere and will invite the Legislature to pass legislation, by which where protective duties are not imposed as a result of the recommendations of the Tariff Board upon United Kingdom goods of the kinds specified in Schedule G, the margins of preference shown in that Schedule will be extended to such goods."

Schedule G includes miscellaneous manufactures and made-up goods containing cotton, silk and artificial silk, the duties on which would require to be adjusted in relation to any decision which the Government of India may make, as a result of the Tariff Board enquiry, as to the duties to be imposed on cotton and artificial silk piecegoods. At the time of writing (June, 1933) no decision has yet been made concerning these textile items but it is anticipated that a Bill will be introduced in the Indian Legislative Assembly in September, 1933.

Iron and Steel.—In this case also, the duties on iron and steel which were fixed after a full investigation by the Tariff Board, will come under review in the statutory enquiry by the Board, which will be made in 1933. In the existing tariff, lower rates of duty are levied on certain classifications of United Kingdom iron and steel—not in the interests of the United Kingdom but in the interests of India and in pursuance of the policy of discriminating

* The text of the Agreement will be found in the Summary of Proceedings of the Imperial Economic Conference at Ottawa, 1932 [Cmd. 4174] (Price 1*s.* 6*d.* net.).

protection. The Indian delegation held that these rates of duty could not become the subject of bargaining with the United Kingdom delegation and that any modification of them must be postponed until the Government of India had before them the considered recommendations of the Tariff Board. It was possible, however, to grant a 10 per cent. preferential duty on all unprotected items of iron and steel which are subject to duty under Nos. 60, 61, 62 and 97 of Schedule II of the Indian Tariff Act. These include such important items as iron or steel pipes and tubes, hoops and strips, practically all high speed and tool steels and other Sheffield specialities, fencing wire, etc., etc. The standard rate of duty on these items is now 20 per cent. and the preferential rate of duty on imports of British manufacture is 10 per cent.

Supplementary Agreement Regarding Galvanised Sheets.— The anxiety of India to safeguard a substantial and growing market in the United Kingdom for sheet bars and billets manufactured by the Tata Iron and Steel Co., Ltd., the surplus capacity of which is estimated to be about 200,000 tons per annum, induced the Indian delegation to offer, in return for a continuance of the free entry of Indian sheet bar and billets into the United Kingdom, special concessions on galvanised sheets of United Kingdom manufacture entering India. By Article I of the Ottawa Agreement, His Majesty's Government in the United Kingdom undertook to continue after the 15th November, 1932, free entry to all classes of goods covered by the Import Duties Act. It was clearly understood, however, that the continuance of the free entry of Indian iron and steel for a longer period than six months from the date of the Agreement was dependent on the settlement of satisfactory conditions in regard to the tariff treatment of galvanised sheet on importation into India. After negotiations between representatives of the United Kingdom sheet industry and the Tata Iron and Steel Co., Ltd., the following supplementary agreement was concluded between the two Governments by an exchange of letters dated the 22nd September, 1932 :—

(1) On the basis of present selling prices, the duties on galvanised sheet in the Indian tariff to be adjusted as follows :—

Rs.30 per ton on sheet made in the United Kingdom from Indian sheet bar.

Rs.53 per ton on sheet made in the United Kingdom from other sheet bar.

Rs.83 per ton on sheet not made in the United Kingdom.

(2) In the event of further reductions in the price of sheet imported into India and not made in the United Kingdom, the Government of India, as soon as they are satisfied that a fall in prices had in fact occurred, would, without an enquiry by the Tariff Board, take prompt and effective action to meet the situation by the imposition of an additional duty. The amount of the additional duty would not necessarily be limited to the amount of the price reduction actually made but would be sufficient to make clear the intention of the Government of India to maintain prices.

(3) Each Government would remain at liberty to take appropriate measures to prevent sales at unfair prices by the manufacturers in the other country or

to check an unnecessary increase in prices against the consumer by a combination of manufacturers in both countries.

(4) These arrangements to remain in force until action is taken by the Government of India following the next statutory Tariff enquiry in India into the Iron and Steel industry.

This supplementary agreement will remain in force until the 31st March, 1934, when the duties on galvanised sheet will be displaced by such duties as may be fixed after enquiry by the Tariff Board. Meanwhile an agreement has been reached between the Tata Iron and Steel Co., Ltd., and the United Kingdom sheet industry whereby the Oriental Steel Co. of London allocate the distribution of Indian sheet bars among the United Kingdom sheet rollers. The bar remains the property of the Tata Company and the sheets made from it are reconsigned to India for disposal by them in quantities and for markets which are fixed by agreement between the two parties. The preferential rates of duty are allowed by the Indian Customs Authorities against certificates, countersigned by the Indian Trade Commissioner in London, to the effect that the sheets have been rolled in the United Kingdom from sheet bar either (1) made in India or (2) not made in India, as the case may be.

This agreement is a first example of the value of Imperial Industrial Co-operation as applied to the United Kingdom and Indian steel industries. It is to be hoped that working arrangements may in future be entered into with regard to other iron and steel products. As I have repeatedly stated, the Indian market offers adequate scope for the full activities of both industries if only mutually satisfactory arrangements can be made for the adjustment of rolling programmes, the zoning of markets, etc.

Trades Subject to the 10 *per cent. Preference.*—Schedule F of the Agreement is a list of those articles which, if they are the produce or manufacture of the United Kingdom, enjoy a preference of 10 per cent. They include some of the trades where the most severe foreign competition is experienced by United Kingdom manufacturers and where a preference is of special value. The list includes for example, a wide range of chemicals, hardware and cutlery, instruments and apparatus, non-ferrous metals, rubber manufactures (including tyres), woollen manufactures, paints and painters' materials, certain items of paper and stationery, building and engineering materials, drugs and medicines, lubricating oils, beer, canned and bottled provisions, condensed and preserved milk, toilet soaps and toilet requisites, brushes, leather boots and shoes, arms and ammunition, earthenware and porcelain, leather manufactures, toys and requisites for games and sports, pedal bicycles and parts thereof and accessories, etc.

Trades Subject to the 7½ per cent. Preference.—These are also included in Schedule F and comprise motor cars (including taxi-cabs), motor omnibuses, vans and lorries and parts and accessories therefor (excluding rubber tyres, which enjoy a 10 per cent. preference).

In 1929/30 the imports from the United Kingdom into India of goods of the classes specified in Schedule F were valued as follows (the figures are abstracted from the report of the Indian delegation):—

	Value (£1,000)
Food and drink	1,398
Oils	229
Building and Engineering materials	461
Chemicals (unprotected)	936
Drugs and medicines	583
Hardware and cutlery	1,321
Instruments, apparatus and appliances	1,385
Iron and steel (unprotected)	1,761
Other metals	934
Paints and painters' materials	518
Paper and stationery (unprotected)	713
Rubber manufactures	834
Wool and woollen manufactures	945
Vehicles other than motor vehicles	763
Motor vehicles	1,097
Miscellaneous manufactures	1,726
Certain items under the headings of machinery and electric wires and cables	say 750
Total	£16,354

In the same year the imports into India from the United Kingdom of items specified in Schedule G were valued as follows:—

	Value (£1,000)
Apparel	422
Haberdashery and millinery	191
Cotton goods in Schedule G	386
Silk and artificial silk	71
Total	£1,070

A grand total of £17,424,000.

A more practical criterion of the value of the preferential duties to the United Kingdom exporter may be obtained by taking the statistics of the imports into India from foreign sources of the goods covered by the preferences. Adopting 1929/30, which was the last normal year prior to the slump and the political agitation, as a basis, I estimate that the value of the imports into India from foreign sources of the goods included in Schedules F and G and in the supplementary steel sheet agreement amounted roundly to £25,000,000. This, therefore, is the trade into which we may now encroach with varying rates of preference—mostly 10 per cent.—in our favour.

Reception of the Ottawa Agreement in India.—When the bill to give effect to the provisions of the Ottawa Agreement was introduced in the Indian Legislative Assembly in October, 1932, it was met with a certain spirit of suspicion and mistrust. The Government of India promptly appointed a strong, representative special committee of the House to scrutinise the Agreement and to report whether, after careful and detailed examination of the agreement and the Schedules, they were prepared to recommend its acceptance to the Legislature. The report of this special committee is illuminating as it reveals the intensity of protectionist feeling among Indian politicians. Referring to the preferences to be given to the United Kingdom, the Committee state :—

" The exclusion of all India's protected industries from the scope of preference is a noteworthy and desirable feature of the Agreement. The Delegation point out, in paragraph 39 of their Report, that " commodities which are the product of a protected industry but are not subject to protective duties at present (and this applies to other protected industries besides cotton and iron and steel) are not excluded from the preference, but if at any time it is desired to bring new commodities within the protective scheme, it will be open to the Government of India to give notice under Article 14 of a variation in the Agreement and in this way to bring about the desired result." We understand that the same principle will apply to industries which are not at present protected but which may hereafter be given protection. The result desired can, in their case also, be achieved by means of the provision made in Article 14 of the Agreement and though, under the precedure prescribed in that Article, a long period of time, up to a maximum of one year, must elapse before any change can be made in the *margin* of preference given by India to the United Kingdom under the Agreement, this delay does not prevent the grant with immediate effect of protection to an Indian industry not at present enjoying it, for the Government of India are left free by the Agreement to impose at any time upon imports from the United Kingdom such rates of duty as they may require so long as the guaranteed margin of preference is not diminished. We consider it essential that the operation of the Agreement should not in any way prejudice the policy of discriminating protection which India has adopted for the development of her industries.

On a careful consideration of the import Schedule we find that articles of the same kind as certain of those included in the preferential list are also produced by Indian industries which, though not protected by an Act of the Legislature, have been started or developed behind the shelter of the revenue tariff and which may be detrimentally affected by any lowering of the existing rate of duty on imports from the United Kingdom. It is true that the normal revenue rate of duty in the Indian tariff is 15 per cent. *ad valorem* and that its present level of 25 per cent. is the result of two successive surcharges imposed during the last year as a temporary measure to meet an emergency. Nevertheless we consider that when the tariff Bill required to give effect to the Agreement is referred to a Select Committee, the position of such Indian industries as appear to need special consideration should be carefully examined, and if a " prima facie " case for such treatment is satisfactorily established, the existing rate of duty on the articles which they produce, including the revenue surcharges imposed in 1931, should be retained as the lower preferential rate so long as the surcharges or any portion of them remain. In saying this, however, we do not wish to be understood as in any way supporting the continuance of the existing level of the general tariff any longer than is absolutely necessary for revenue purposes. In our opinion the general level of the tariff after the imposition of surcharges by the Finance Acts of 1931 should in the interests of the country generally be reduced as soon as the financial situation permits."

The Committee recommended that the Government of India should prepare an annual report reviewing the effect on India's export and import trade of the preferences given in the Agreement and that there should be included in the report a statement of the Indian industries, if any, which have made representations to the Government of India in regard to the effect upon them of the import preferences and a statement of the action taken by the Government of India on such representations.

They also recommended that a Committee, consisting of not more than fifteen members, be appointed by the Legislative Assembly to consider the report referred to above, to examine in the light of the information furnished by it and, if necessary, with the assistance of representatives of the interests concerned, the effect which the preferences contained in the Agreement have had upon the agricultural and other industries and on the export and import trade of India, and to report to the Assembly.

The Committee further recommended that on the expiry of three years from the date on which the preferences given by the Agreement become operative, the Government of India should place before the Legislative Assembly a detailed report on the course of the import and export trade in the commodities covered by the preferential rates of duty, and that they should undertake to give the notice of denunciation required by Article 14 of the Agreement if the Legislative Assembly, after considering the report, is satisfied that the continuance of the Agreement is not in the interests of India. The Committee added that the Government of India's right to give notice at any time of denunciation of the Agreement is not affected by this recommendation. Finally, the Committee recorded that :—

" So far as we are able to judge, it is definitely to India's interests to accept the Agreement. The only certain test is experience of the actual results over an adequate period of time, and we believe that, if the recommendations which we have made to that end are carried into effect, the Government of India and the Legislature will be provided with the material necessary to enable that test to be applied."

On the 6th December, 1932, the Indian Legislative Assembly passed by 77 votes to 25 the following resolution :—

" That this Assembly, accepting the Trade Agreement made by the Government of India with His Majesty's Government in the United Kingdom, which was signed at Ottawa on the 20th August, 1932, and the Supplementary Agreement regarding iron and steel contained in the correspondence between Sir George Rainy and Sir Horace Wilson, dated the 22nd September, 1932, and approving the report of the Committee set up by this Assembly on the 10th November, recommends to the Governor General in Council that he do introduce in the Indian Legislature at the earliest possible moment such legislative measures as may be necessary to give effect to the Agreements in question and further that he do give effect to the recommendations of the said Committee."

The Indian Tariff (Ottawa Trade Agreement) Amendment Act, 1932.—The Bill was referred to a Select Committee of the House, which made certain amendments, the principal of which were :—

(*a*) in the case of unexposed cinematograph films, the preference to be given wholly by a reduction in the duty, the standard rate to be 25 per cent. *ad valorem* and the preferential rate 15 per cent. *ad valorem*.

(*b*) in the case of toilet soap, as a result of representations from the Indian soap making industry, the preference was given by retaining the existing rate of 25 per cent. on United Kingdom goods and raising to 35 per cent. the duty on foreign goods.

(*c*) as a protective measure to the Indian woollen industry the preference on woollen goods was given by increasing the existing duty by 10 per cent. against foreign goods, the standard rate becoming 35 per cent. and the preferential rate 25 per cent.

(*d*) in order to protect the consumers of a commodity essential for industrial purposes, the rates of duty on lubricating oils were reduced to 2½ annas per gallon for the standard rate and ½ anna per gallon for the preferential rate.

(*e*) similarly, in view of the importance of motor vehicles to the developmen of road transport, the preference was given by reducing the existing duty, the standard rate remaining at 25 per cent. and the preferential rate of 17½ per cent.

(*f*) in order to prevent a rise of the price of asphalt, which is a necessary article in road construction, the standard rate was maintained at 25 per cent. and the preferential rate fixed at 15 per cent.

The Bill was passed on the 15th December, 1932, without a division. It received the assent of the Governor-General on the 23rd December, 1932, and the revised duties came into force on the 1st January, 1933. The Act,* with its accompanying Schedules is too long to be included in this report, but it may be referred to at the Department of Overseas Trade, 35, Old Queen Street, London, S.W.1, to which address all enquiries relating to the actual rates of duty, both standard and preferential, now in force, should be forwarded.

The Ottawa Trade Agreement Rules, 1932.—By Notification No. 780-T (11) of the 24th December, 1932, the Commerce Department of the Government of India promulgated rules applying to goods consigned from the following countries (a) the United Kingdom of Great Britain and Northern Ireland and (b) the Colonies, British Protectorates and territories under the British Mandate specified in the first Schedule of the Act. In these rules it is defined that :—

(*a*) The " Act " means the Indian Tariff Act, 1894.
(*b*) The " United Kingdom " means the United Kingdom of Great Britain and Northern Ireland.
(*c*) " British Colony " means any country specified in the First Schedule.
(*d*) " Expenditure on material " means the cost to the manufacturer of the material at the factory or works, including containers but excluding Royalties; and

*The text of the Act was published in the Board of Trade Journal of the 22nd December, 1932.

(*e*) " Factory or Works Cost " means the cost of production to the manufacturer at the factory or works and shall include the value of containers and other forms of interior packing ordinarily sold with the article when it is sold retail, but shall not include the manufacturer's or exporter's profit or the cost of exterior packing, carriage to port and other charges incidental to the export of the article subsequent to its manufacture.

The most important of these Rules* which are too long to be quoted *in extenso,* but which can be consulted at the Department of Overseas Trade, is Rule 4, which lays down the conditions for admission into India at preferential rates. It reads as follows :—

" No article shall be deemed to be the produce or manufacture of any country to which these Rules apply unless the Customs Collector is satisfied that it has been consigned from such country, and—

(*a*) where the article is unmanufactured, that it has been grown or produced in such country, and

(*b*) where the article is manufactured—

(i) that it has been wholly manufactured in such country from material produced in such country, or

(ii) that it has been wholly manufactured in such country from unmanufactured materials, or

(iii) that it has been partially manufactured in such country and the final process of manufacture has been performed in such country and that the expenditure on material produced and labour performed in such country in the manufacture of the article is not less than one-quarter of the factory or works cost of the article in its finished state :

provided that where the goods were consigned from a British Colony the material produced and labour performed in any other British Colony may be reckoned as though it were material produced or labour performed in the Colony from which the goods are consigned."

The remaining rules relate to Custom House precedure for goods entered for home consumption and for warehousing. Appended to the rules are schedules giving a list of British Colonies concerned and also specimen forms of certificates of value and origin for admission at the preferential rate of duty of articles under the Act. The most important from the United Kingdom exporter's standpoint is Form " A," which is the form of combined certificate of value and origin to be written, typed or printed on invoices of goods for which entry into India is claimed at preferential rates of duty. These certificates must be signed by the authorised representative of the manufacturer or supplier of the goods enumerated in the invoice. During the first few months of the operation of the Act, an unduly high proportion of these certificates have been carelessly completed by United Kingdom exporters. The Indian Customs Authorities have been acting leniently in the matter, but will, in future, insist upon strict adherence to the terms of the certificate.

*The text of the Rules was published in the Board of Trade Journal of the 26th January, 1933.

Advantages to the United Kingdom Exporter of the Ottawa Trade Agreement.—It is not possible at this early stage to make any close evaluation of the tariff concessions allowed on United Kingdom goods entering the Indian market. In the first place the future of the protective duties (dealt with in Article 11 of the Agreement) on British and foreign cotton and artificial silk goods has not yet been determined. It has already been observed that, taking Schedules F. and G. and the supplementary agreement relating to galvanised sheets there is a foreign trade, amounting in value in 1929/30 to £25,000,000, into which we may now encroach with varying preferential rates of duty—mostly 10 per cent. *ad valorem*—in our favour. The extent to which United Kingdom exporters may hope to divert that trade depends upon such a variety of factors, impossible of precise appraisement, that it is not practicable even to hazard a guess at the percentage which we may hope to secure. In the first place, during periods of acute depression and restricted purchasing power such as the present time, the Indian market practises the substitution of the cheapest articles, which are frequently of inferior quality. This operates most severely against the United Kingdom and in favour of Continental and Japanese Manufacturers. In times of prosperity and active trade, purchasers revert to United Kingdom goods on account of their reputation for quality. When these times recur in India the preferential duties should enable us to secure a considerable additional share of the bazaar trade. Secondly, the depreciation of sterling gives us an abnormal advantage in competing with nations still on the gold standard. The effects are most noticeable at the present time in the heavily reduced imports from the United States. This, however, is a factor which cannot be expected to last. Already, the depreciation of the dollar is creating renewed activity on the part of United States competitors. Similarly, the depreciation of the yen is giving Japanese exporters an advantage in world markets which would offset any reasonable preferential duty. Until, therefore, there is some stabilisation of the world's currencies and media of exchange, it is impossible to estimate the effect of a relatively low preferential margin of 10 per cent. Lastly, and perhaps most important of all, the success which is likely to accrue to the United Kingdom exporter will largely depend upon the energy and imaginative forethought with which he follows up the fiscal advantages which have been obtained for him.

The outstanding advantage of the Ottawa Trade Agreement is the acceptance by India of the principle of Imperial Preference and her realisation that it is to her material interest to take her part in the economic *bloc* of the British Commonwealth of Nations. As the Finance Member stated during the debate in the Indian Assembly :—

> " the real issue in the matter is this—is India to join the economic group of the British Commonwealth of Nations or is India to cut herself adrift

and stand alone for all time. I do not believe that there is any Honourable Member in this House who, if he himself sat here and had to carry on his shoulders the responsibility of answering that question, could possibly answer it in any other way than that in which we and our delegates have done."

Whatever may be the captious spirit of certain Indian politicians, as disclosed in the reports of the select committees and the debates in the Assembly, there is no doubt whatsoever that the conclusion of the Ottawa Agreement has resulted in a great improvement in feeling in Indian business circles and has put heart into thousands of loyal bazaar dealers, who had begun to lose faith in the competitive power of United Kingdom goods. Ever since the beginning of the last political agitation and boycott campaign in April, 1930, these sorely harassed traders have had to face not only heavy material losses but also calumny, abuse and social persecution. To the improvement during the past year in political and racial feeling is now added the opportunity of carrying on their lawful avocations on a profitable basis and with a fiscal advantage vis-à-vis their competitors who deal in foreign goods. An authoritative observer who has spent his whole life in business in India recently stated that he found a much more optimistic feeling with regard to the future of United Kingdom trade among his Indian friends and dealers than was noticeable among Europeans in India or even in the United Kingdom.

Quite apart, however, from the benefits accruing from a general revival of confidence in the competitive power of United Kingdom industry, a close analysis of the Schedules shows that the preferences are of considerable practical value. They apply in precisely those trades where foreign competition has been most keen and where a stimulus is required. In the case of hardware, the margin of 10 per cent. should divert a considerable amount of the trade in higher-grade goods from the United States and Sweden to United Kingdom sources, while in the cheaper classes of products it should have some effect against German and Austrian competition. In the comprehensive trade in instruments, appliances and apparatus, the preference should result in an improvement of the United Kingdom position vis-à-vis Continental suppliers and the United States, particularly in electrical instruments and in photographic, musical, surgical, wireless and scientific instruments of all kinds. Bradford shippers should derive material advantage from the 10 per cent. preference on all woollen goods when competing with France, Italy, Germany and Belgium. United Kingdom exporters of yellow metal and copper sheets, aluminium, German silver and other non-ferrous metals will now be able to meet Continental competition with greater facility. As regards motor vehicles and rubber goods (including tyres), our manufacturers enjoy, at the moment, an ephemeral exchange advantage against their United States competitors. The $7\frac{1}{2}$ per cent. preference in the case of motor vehicles and 10 per cent. in the case

of rubber manufactures should be a valuable aid even when the exchange advantage disappears. The preferential margin will help us to meet German and Japanese competition in the valuable cycle trade, it will assist the new United Kingdom canning industry against the United States in canned and bottled provisions, and should strengthen our hold vis-à-vis the Continent in paints, the Continent and the United States in toilet soap, Germany in drugs, Czechoslovakia in leather boots and shoes, Germany and Holland in beer, the United States and the Continent in lubricating oils, the Continent in toys, requisites for games and sports, and certain manufactures of paper and the United States and the Continent in toilet requisites.

The advantage of 10 per cent. on an extended range of chemicals and chemical preparations should be a valuable adjunct to the efforts of the highly efficient United Kingdom chemical group in their severe competition with the German combine and will, it is hoped, help to check the imports of Russian alkali products. Similarly, the preferential margin of 10 per cent. on certain unprotected items of iron and steel will strengthen the hold of Sheffield firms on the trade in high speed, spring and tool steels and will materially assist United Kingdom manufacturers of pipes and tubes, hoops and strips, certain railway track materials, certain types of bars, rods and plates, fencing wire and wire rope, etc. Where International Cartels control the national quotas in certain articles, the preference has already been found to be of valuable assistance in enabling the United Kingdom group to demand an increased share of the Indian market. United Kingdom exporters will find more specific particulars under each item of import in the analysis of the import trade in Chapter V.

The Ottawa Trade Agreement will, it is confidently expected, inaugurate a new era of closer and more profitable trading relationships between the United Kingdom and India. While the initial steps have been taken by representatives of the two Governments, the success of the movement must depend upon the extent to which the fiscal advantages are followed up by energetic action on the part of the United Kingdom and Indian manufacturers and merchants. The present time, when trade is at its nadir and it would seem that we are on the eve of a gradual recovery, is a peculiarly favourable one for United Kingdom exporters to take stock of their position in the Indian market and make their plans for improved local selling and distributing organisations, taking into account the rapidly changing conditions in the country which demand more modern and improved methods than have often been employed in the past. Adequate representation on the spot is essential. The days when the United Kingdom manufacturer could rely entirely upon the receipt of orders in the United Kingdom without further effort on his part have gone for ever. In the numerous cases where he operates his own branch distributing organisation in India, he will, doubtless, strengthen and

extend it to cover a wider field. In those instances where he is represented in India by agents, he should confer with them as to the further steps which should be taken to ensure that his goods are adequately stocked, advertised, canvassed and sold. He must realise that the average merchant in India cannot afford adequately to distribute goods throughout his area on a bare agency commission unless he is supported by travelling and advertising allowances and, preferably, in the case of goods of a technical nature, by the addition to his staff of a specialist from the works. Unless the manufacturer is prepared to take an active interest in the further distribution of the goods after they have been shipped and constantly to keep in sympathetic touch with the activities of his agent, he cannot rely upon the distribution of his products in the most efficient manner. Similarly, in those cases where a cold-weather traveller is employed, the manufacturer should endeavour to ensure that the ground is adequately covered and that he is giving his representative adequate support as regards samples, descriptive literature, advertising material and allowances. In very few cases is it possible to conduct a satisfactory business by correspondence alone without some form of local representation. India is a highly specialised and intricate market with many pitfalls for the unwary. It consequently requires more sales planning and specialised local representation than most markets. It is suggested, therefore, that exporters who may be entering the market without previous experience should consult the Department of Overseas Trade who will be glad to advise with regard to conditions obtaining in India and suitable forms of representation.

Just as the past ten years have witnessed almost a revolution in political thought and institutions in India, so have economic conditions and methods of transacting business shown a remarkable change in keeping with the World's progress. The market now demands as efficient and widespread technical, publicity, sales and service systems as any Western country. When one considers that the difficulties peculiar to the country, e.g., its enormous area and comparative slowness of transport, the risks attending the grant of credit, the paucity of statistics and the difficulty of securing accurate information relating to internal trade, etc., still remain, it will be realised that considerable forethought and expert advice is required in devising a marketing scheme which will meet present day Indian conditions. The Ottawa Agreement has prepared the way for a great advance in United Kingdom—Indian trading relations. It now rests with individual United Kingdom and Indian exporters to take the fullest advantage of the opportunities offered for the mutual benefit of the two countries.

CHAPTER III

AN ACCOUNT OF THE FURTHER DEVELOPMENT OF PURCHASES OF GOVERNMENT STORES IN INDIA BY THE INDIAN STORES DEPARTMENT, THE RAILWAY ADMINISTRATIONS AND OTHER DEPARTMENTS OF THE GOVERNMENT OF INDIA

The rupee tender system came into force on the 1st January, 1931, and is now working smoothly and satisfactorily. It has resulted in a considerable diminution in the contracts placed by the India Store Department, London, and a corresponding increase in the purchases made by the Indian Stores Department, Delhi/ Simla. This transfer of purchasing from London to India would have been still more marked but for the general curtailment of demands due to financial stringency. The following comparative statement of the purchases made by the London and Indian Stores Departments clearly shows the changed position :—

[TABLE]

(The figures are in thousands of rupees).

	Textiles and Leather stores		Engineering, Hardware & Miscellaneous stores		Other classes of stores (a)		Total	
	London Stores Department	Indian Stores Department	London Stores Department	Indian Stores Department	London Stores Department	Indian Stores Department	London Stores Department	Indian Stores Department
1. Central Departments.—ARMY.								
1929-30	3,567	4,492	23,310	7,400	3,576	—	30,453	11,892
1930-31	3,640	3,494	16,028	7,034	5,719	—	25,387	10,528
1931-32	978	6,968	6,723	6,855	2,828	—	10,529	13,823
2. Central Departments.—CIVIL.								
1929-30	63	1,402	1,208	5,417	3,180	—	4,451	6,819
1930-31	18	1,205	976	6,020	2,310	—	3,304	7,225
1931-32	7	816	787	3,007	1,252	—	2,046	3,823
3. Railways—								
1929-30	20	4,117	24,253	10,929	380	—	24,653	15,046
1930-31	37	3,824	13,147	8,974	127	—	13,311	12,798
1931-32	4	1,692	307	10,922	2	—	313	12,614
4. Provincial Governments.—								
1929-30	140	1,319	16,186	6,123	1,366	—	17,692	7,442
1930-31	72	1,311	4,183	4,938	1,193	—	5,448	6,249
1931-32	98	1,138	7,720	4,224	858	—	8,676	5,362
5. Indian States, Foreign Governments and Quasi-Public Bodies.—								
1929-30	—	6	—	1,721	—	—	—	1,727
1930-31	—	3	—	880	—	—	—	883
1931-32	—	1	—	377	—	—	—	378
Total—								
1929-30	3,790	11,336	64,957	31,590	8,502	—	77,249	42,926
1930-31	3,767	9,837	34,334	27,846	9,349	—	47,450	37,683
1931-32	1,087	10,615	15,537	25,385	4,940	—	21,564	36,000

N.B.—The figures of the India Store Department, London, have been converted at the rate of 1s. 6d. = Re 1/-

(a) Stores not dealt with by the Indian Stores Department, e.g., Medical stores, munitions, stationery & printing, stamps, currency, foodstuffs, etc.

The Indian Stores Department in 1932-33.—I am indebted to Sir James Pitkeathly, Kt., C.M.G., C.I.E., etc., etc., Chief Controller of Stores, for the following information, which has been abstracted from his administration report for the year. This and preceding reports may be seen at the Department of Overseas Trade and should be read by all firms interested in the supply of stores to the Government of India. The Chief Controller reviews the progress made during the year in the following terms:—

" There was no improvement during 1932-33 in the acute and widespread trade depression which prevailed during the previous year. As a consequence this report on the working of the Indian Stores Department has of necessity to record a still further all-round contraction in the value of business transacted, a direct consequence of the curtailment of activities of spending departments imposed by prevailing conditions and aggravated by a further drop in commodity prices. The number of orders placed during the year increased from 34,928 to 44,045, but their value decreased from Rs.3,60,00,006 to Rs.3,30,90,903. The value and tonnage of stores inspected during the year amounted to Rs.3,54,07,609 and tons 156,203 as against Rs.4,84,21,867 and tons 310,504 during the year 1931-32. The number of tests and analyses carried out at the laboratories of the Government Test House, Alipore, and the Metallurgical Inspectorate, Jamshedpur, amounted to 11,512 as compared with 14,401 during the preceding year. The large reduction in the value and tonnage of stores inspected was caused by a heavy decline in the orders placed by other Departments, the inspection of which is entrusted to the Indian Stores Department. This branch of the Department is mainly maintained to meet the requirements of the Railway Administrations. The Railway Board's demand for rails and fishplates, which are manufactured by the Tata Iron and Steel Co., Ltd., and inspected by the Metallurgical Inspector, declined from 120,000 tons in 1929-30 to 35,998 tons in 1932-33 and similarly the value of bridge work, structural steel and other supplies inspected on behalf of various Railways declined from Rs.4,05,05,822 to Rs.91,15,933 only. Consequently the total amount of stores inspected by the Department which amounted to Rs.7,47,99,137 and tons 343,109 during the year 1929-30 have been reduced, by the financial depression of the last three years, to less than half of these figures."

Activities of the Purchase Branch.—The total value of orders placed by the Department during the year amounted to Rs.3,30,90,903 as compared with Rs.3,60,00,006 during 1931-32; that is to say, there was a decline of 8.1 per cent. or Rs.29,09,103. On the other hand the volume of work increased as measured by the number of indents received and contracts placed. The number of indents received during 1931-32 was 28,259 (comprising 61,657 items), whereas 38,720 indents (comprising 77,288 items) were received during 1932-33. During 1931-32, 34,928 contracts were placed, whereas during 1932-33 the figure increased to 44,045. As already indicated, the decrease in value was due partly to the fact that stores were demanded in smaller quantities as compared with previous years, and partly to the continued drop in market prices.

Purchases on Behalf of the Civil Departments of the Central Government.—The value of demands received from Civil Departments of the Central Government increased by Rs.2,07,667 as compared with that of the preceding year. Demands for plant

and machinery and other stores amounting in value to Rs.9,00,000 were received from the Administrative Officer, Vizagapatam Harbour. There was an increase in the value of stores ordered for the Salt Department of Rs.1,37,000. Small increases in the value of stores ordered have also to be recorded for certain other Civil Departments. The largest decrease has to be shown against the value of orders received from the Posts and Telegraphs Department. It amounts to Rs.7,24,000. The value of textile stores purchased for this Department increased by Rs.3,47,000 but the value of engineering stores declined by Rs.10,71,000. Purchases on behalf of the Central Public Works Department were less in value by Rs.67,000 and small decreases are disclosed in the transactions undertaken for certain other Departments.

It will be observed that the fluctuations as between 1931-32 and 1932-33 are not so great as the comparisons recorded in previous reports. The volume of demands generally has been greatly restricted and there has therefore been smaller scope for variations.

Purchases on Behalf of the Military Department.—The Purchase Co-ordinating Committee referred to in previous Reports continued to meet during the year. The question of entrusting to the Indian Stores Department the purchase of certain classes of stores which is at present being carried out by the purchasing agency of the Army was referred to by the Stores, Printing and Stationery Sub-Committee of the Retrenchment Advisory Committee in its Report which is under consideration by the Government of India. The total purchases made during the year on behalf of the Army amounted to Rs.90,69,000 against Rs. 1,38,23,000 in the previous year. In other words there was a notable decrease of Rs. 47,54,000 or 34.4 per cent. The textile stores purchased declined in value by Rs.26,70,000 and engineering stores were less in value by Rs.20,84,000. These remarkable reductions are due to the rigid economy in expenditure which is being observed. Textile stores have been ordered in much smaller quantities. The purchase through the Department of Mechanical Transport vehicles and equipment declined by Rs.15,93,000, and owing to the curtailment of works programme the value of stores purchased for the Military Engineer Services fell by Rs.5,55,000.

Purchases on behalf of Railway Administrations.—Meetings with the Railway Department (Railway Board) were continued throughout the year and as a result the following items were added to the list of requirements of State Railway Administrations, the purchase and inspection of which for the future will be entrusted to the Indian Stores Department :—

Engineering plant.—

Boilers, non-locomotive, and tubes for the same.
Wheels and axles for trollies.

Workshop machinery, plant and equipment.—
Electric welding plant.
Electrodes.
Electric cranes, all kinds.
Air Compressors.
Motor and control gear for driving machines (except where the motor forms a component part of a machine).

Permanent-way materials.—
Gangman's tools.

Electric locomotives, parts and fittings.—
Superheater elements.
Diesel Electric Locomotives.

Trimmings.—
Cloth, Linoleum.

Signalling and interlocking material.—
Poles, tubular, for signals (where purchased without signals).
Point, rodding, tubular or solid.

Leather, India-rubber and canvas goods.—
Belting of all kinds (leather, cotton, hair, rubber, balata, etc.).

Metals.—
Wire, steel, mild.

The value of purchases made during 1932-33 for Railway Administrations as a whole (i.e., State, Company and Indian State lines) totalled Rs.1,52,77,000: during the preceding year this figure was Rs.1,26,14,000. Thus there was an increase of Rs.26,63,000 or 21 per cent. In the present circumstances this result may be held to be very gratifying as it has been achieved despite the restriction exerted by the policy of strict economy which existing conditions have imposed and despite also the fall in the general level of prices. The increase, therefore, it will be realised, is greater than is shown by the bare statistics and is due to the expansion of new business entrusted by the Railway Board and Railway Administrations to the Indian Stores Department. But for this welcome support and co-operation a heavy decline would have had to be recorded. An analysis of the increase shows that purchases on behalf of the State Railways accounted for extra turnover amounting to Rs.28,77,000. Contracts entered into on behalf of Company Railways declined in value by Rs.3,18,000. On the other hand, purchases for Railways in Indian States increased by Rs.1,04,000.

Purchases on behalf of Major Local Governments.—The total of purchases made on behalf of major Local Governments, including the recently constituted Government of the North-West Frontier Province which was previously shown under Central Government Departments, was Rs.42,30,220 for the year as compared with Rs.53,61,701 for 1931-32, i.e., there was a reduction of Rs.11,31,481 or 21 per cent.

The value of demands received from the Governments of Bombay, Bengal, United Provinces, Punjab and Assam accounted for a decrease of approximately Rs. 12,83,000 while those from

the Governments of Madras, Bihar and Orissa, Burma and Central Provinces showed an increase of approximately Rs.1,35,000.

The value of textiles purchases for Major Local Governments was approximately the same as that for 1931-32. The net decrease referred to is in respect of demands for Engineering Stores. Decreases have to be recorded against the value of engineering stores purchased on behalf of the Governments of Bombay, Punjab and the United Provinces the total being approximately Rs.12,38,000. The decreases in expenditure are almost entirely accounted for by the cessation of demands from the Lloyd Barrage and Canals Constructions Scheme and a falling off in value of indents from the Hydro-Electric Branch of the Punjab Public Works Department.

Details of Important Purchases.—The more important purchases made during the year are shown below:—

		Amount Rs.
	Textile and leather stores.	
1.	Blankets, woollen	10,22,000
2.	Drill, khaki, coloured, white and grey	10,19,000
3.	Pugree cloth, muslin, nainsook, calico, etc.	4,98,000
4.	Socks, cotton and woollen	4,16,000
5.	Tents and tent components	3,52,000
6.	Yarn, cotton and woollen	3,39,000
7.	Flannel	3,17,000
8.	Cotton waste	3,10,000
9.	Jackets, cardigan, jerseys, waistcoats, banians, etc. ...	2,66,000
10.	Putties, cotton and woollen	2,08,000
11.	Rugs, horse and lohis	1,95,000
12.	Serges	1,65,000
13.	Greatcoats, greatcoat cloth, cloth, drab mixture... ...	1,28,000
14.	Durries, cotton	1,28,000
15.	Flannelette	1,20,000
16.	Canvas, flax, cotton and jute	1,20,000
17.	Sheets, barrack and hospital	1,12,000
18.	Wool cotton, absorbent	1,06,000
19.	Ropes, head, heel and picketting	1,01,000
20.	Bags, postal, jute, flax, leather, etc.	99,000
21.	Twill	97,000
22.	Web components, and equipment	81,000
23.	Nets and netting, mosquito	75,000
24.	Leather cloth and binding furniture	65,000
25.	Dhotie cloth and long cloth	63,000
26.	Garments, uniform	62,000
27.	Cloth cord cotton, and Duck cotton, flax, etc.	60,000
28.	Garments and covers, waterproof	59,000
29.	Tape and webbing	56,000
30.	Boots, chappals, sandals, etc.	55,000
31.	Hessians and gunnies	55,000
32.	Paulins	54,000
33.	Cloths, Domestic, jaconet, dungri, madapalam, etc. ...	50,000

Engineering and allied stores.

		Amount Rs.
34.	Oil, Kerosene.	17,76,000
35.	Steel, axles, tyres and wheels for Railway carriages, wagons, locomotives and tenders	15,29,000
36.	Road dressing materials	12,81,000
37.	Mild steel sections	12,08,000
38.	Oil, lubricating (cylinder, superheat and Miscellaneous)	10,02,000
39.	Cement	9,82,000
40.	Oil fuel	9,36,000
41.	Paints, including dry pigments	8,04,000
42.	Lamps, electric	7,84,000
43.	Train lighting equipment	7,55,000
44.	Fans and fittings, electric	7,50,000
45.	Oil axle	7,40,000
46.	Transformers, switchgear and witchboards	5,18,000
47.	Steam tug	5,09,000
48.	Motor vehicles and spares	4,92,000
49.	Cables, electric	4,24,000
50.	Oil, castor	3,68,000
51.	Vacuum brake fittings	3,41,000
52.	Enamels and varnishes	3,35,000
53.	Petrol	3,23,000
54.	Pipes, mild steel, and fittings	2,93,000
55.	Pig iron	2,84,000
56.	Tubes, steel, high pressure	2,76,000
57.	Meters, water	2,74,000
58.	Oils, linseed, raw and double boiled	2,71,000
59.	Primary and secondary cells and spares (other than train lighting)	2,56,000
60.	Electric Generating Plant	2,50,000
61.	Tyres and tubes, motor	2,25,000
62.	Wire, galvanised, iron	2,24,000
63.	Pumping plant and equipment	2,22,000
64.	E.H.T. Electricity Distribution mains including construction at site	2,00,000
65.	Wire, copper	1,87,000
66.	Oxygen gas	1,71,000
67.	Pipes and specials, cast iron	1,41,000
68.	Sheets, galvanized iron, corrugated	1,32,000
69.	Miscellaneous engineering plant and spare parts of machinery	1,30,000
70.	Tin tents and components	1,28,000
71.	Charpoys, galvanized iron	1,29,000
72.	Level luffing electric quay cranes	1,27,000
73.	Greases	1,26,000
74.	Asbestos cement pressure pipes	1,11,000
75.	Oil, for gas making	1,09,000
76.	Salt crushing and screening plant	1,05,000
77.	Turpentine, genuine and substitute	92,000
78.	Creosote	86,000
79.	Firebricks, and fireclay	82,000
80.	Tubes, boiler, and flues for locomotives	76,000
81.	Asbestos cement sheets and packing	75,000
82.	Acids and Chemicals	75,000
83.	Steel structures (including shelving, racks, almirahs and cabinets)	72,000
84.	Sheets, mild steel	72,000

		Amount Rs.
	Engineering and allied stores—continued.	
85.	Machine tools	65,000
86.	Coal	65,000
87.	Road rollers and spares	64,000
88.	Zinc ingots	63,000
89.	Poles, steel, for electric transmission lines	59,000
90.	Wire ropes	58,000
91.	Flexible electric cords	52,000
92.	Roofing materials for Railway carriages	52,000
93.	Insulators, porcelain and composition	51,000
94.	Pipe hose, canvas and India rubber	51,000
95.	Meters, electric	50,000
96.	Disinfecting fluids	50,000

Encouragement of Indian Industries and Local Purchases.—United Kingdom contractors will realise from the following summary of the work carried out by the Indian Stores Department during the year what a powerful stimulus it applies to local industries :—

" Work was continued during the year to assist manufacturers in India to improve the quality of their products. The means adopted included technical advice and suggestions. Every endeavour was made to substitute supplies of indigenous manufacture wherever possible, without sacrifice of economy and efficiency. A few notable instances are given in the following paragraphs.

The Textile industry.—The following textile products received special attention during the year :—

(1) *Pugri cloth, khaki.*—A mill in the Bombay Presidency submitted a sample of pugri cloth and asked to be informed as to whether it complied with the specification. Tests were arranged by this Department at the Government Test House, Alipore, and the Army Inspectorate, Shahjahanpur. The sample was approved as acceptable against the Army standard sample and it proved much the best pugri cloth yet submitted by any indigenous manufacturer.

The Police Department of a local Government had previously purchased imported khaki pugri cloth. Samples of Indian make cloth as used by the Army and Railways, together with quotations, were furnished and the indenting officer was advised that indigenous cloths were better than imported qualities hitherto purchased by him. In consequence he agreed to accept indigenous qualities for future requirements.

(2) *Greatcoat Cloth.*—The Inspector-General of Police of a local Government had previously purchased imported greatcoat cloth. A sample of indigenous cloth of the quality used by the Army was forwarded. The particulars of imported and indigenous cloths were given and he was advised that the latter was better. The indentor in consequence agreed to purchase this cloth and a contract for approximately 2,300 yards was placed on his account.

(3) *Sheets, linen finish.*—An indentor required annually a number of sheets, cotton with linen finish, supplies of which had hitherto been imported. Investigations were made into the possibility of manufacturing such sheets in India. One firm was able to submit a sample, but this had not the same gloss as the imported material. Further work was carried out by the manufacturer and subsequently two further samples were supplied the finish of which was as good as might be expected in cotton fabrics but still not

equal to the imported article which was of linen. The indenting officer approved one of these samples and stated that his future requirements would be to that sample.

(4) *Waterproof Cloth.*—This Department purchases annually about 3,000 yards and 6,000 made up garments of waterproof cloth which was imported. Manufacturers in India were approached with a view to undertake manufacture and one succeeded in producing an acceptable quality. The firms who generally quote to this Department for made up waterproof garments were informed of this indigenous source of supply. This Department had also purchased this material direct for the use of inferior servants of the Government of India. Some firms in Calcutta are now using considerable quantities of this indigenous material against certain contracts with this Department for waterproof garments.

(5) *Silicia Cloth, Black.*—The estimated annual requirements of a Railway Administration were 10,000 yards of cloth, silicia, black, 54 in. wide, for lining of garments. Supplies up to 1932-33 were made of imported cloth.

During the year this Department addressed twenty-two manufacturing firms in India with a view to their undertaking manufacture of this cloth. One firm succeeded in producing a material acceptable to the Railway concerned at a price which compared favourably with imported material and an order for 8000 yards has been placed for 1933-34 requirements.

The Engineering Industry.—

(1) *Castings.*—Arrangements were made in 1931-32 to inspect the entire output of castings at the works of a well-known firm in Bombay. The inspection work continued during the year under review and the Inspectorate continued to render all possible help by means of technical advice and suggestions. Another firm in Bombay also asked for similar inspection as they experienced considerable difficulty in casting pipes which complied with the prescribed specification. As a result of inspection of their products and at the suggestion of the inspecting officers the firm carried out certain important changes in the method of manufacture which satisfactorily overcame their difficulties.

(2) *Cables.*—It was brought to the notice of this Department that an order for Indian made cables placed by an Executive Engineer had been cancelled on the ground that these cables were not manufactured by a member of the Cable Makers' Association. This Department took up the matter with the Chief Engineer of the local Government concerned and necessary instructions were issued by him to his Executive Engineer to the effect that Indian made articles were to be used.

(3) *Handcuffs, flexible and adjustible.*—These handcuffs were being obtained from abroad by an indenting department. This Department informed the indenting officer concerned that handcuffs of suitable quality and of indigenous make were obtainable in India. A standard sample of the quality hitherto used by the indentor was obtained so that a counter-sample could be made by Indian manufacturers. A satisfactory sample of Indian manufacture was furnished to the indentor and accepted by him. Twelve pairs were then ordered for purposes of trial. These proved satisfactory and a demand for 1,000 pairs was subsequently placed and complied with. The manufacturing firm concerned was given every technical assistance by the Indian Stores Department to turn out satisfactory supplies.

(4) *Piston Rods.*—Two firms in Calcutta were manufacturing piston rods on behalf of other contractors. At first great trouble was experienced mainly in respect of threads being badly cut, sleeves porous and uneven and poor finish generally. Assistance and advice given by this Department enabled them to improve their products so that their piston rods now equal imported supplies.

(5) *Glass Globes.*—Against an indent received from a Railway Administration for glass globes, quotations were invited from Indian manufacturers as well as from importers. Quotations for locally made globes were lower

than those of importers, but the quality of the former was not up to the required standard. The matter was, therefore, taken up with the Indian manufacturers with a view to improve the quality of their products. The defects found therein were intimated to the firm for rectification. The firm eventually improved their products sufficiently for supplies to be accepted by the Railway Administration.

(6) *Roof fittings for train lighting.*—A firm in Bombay secured an order from this Department for locally made roof fittings for train lighting. Advice and suggestions were given to the firm at every stage of manufacture and the fittings ultimately produced compared not unfavourably with the imported products.

(7) *Light Structures.*—At the request of a firm in Bombay their works were visited from time to time by the technical officers of the Indian Stores Department. Advice and suggestions were offered on organisation, machinery and quality of work turned out. In consequence, the firm was considered fit for inclusion in the list of approved contractors maintained by this Department, and registered for supply of light structures and bridge spans up to 20 feet.

(8) *Brushes.*—An order for 5,000 sweeping brushes was placed with a firm in the United Provinces. The firm was instructed in up-to-date methods of manufacture of such brushes and the assistance and suggestions made led to considerable improvements in the quality of their products.

Among other articles to which special attention was devoted during the year for the purpose of developing their manufacture in India or their utilisation in preference to imported articles, the following may be mentioned:—

> Undervests, metal polish, oil cleaning, road barrier lamps, crockery, enamelware, glassware, white lead, bedsteads, steel tanks, electric insulators, Kent couplers, earthenware jars, earthenware troughing, link clips, wire and wire nails, hurricane lanterns, safes and target apparatus."

Important Purchases of Articles of Indian Manufacture. —" The Department continued its efforts to substitute, wherever possible and without sacrifice of efficiency or economy, articles of indigenous manufacture for the imported products. The following is a list of the more important contracts placed during the year for products which were wholly or partially manufactured in India:—

	Amount Rs.
Textile materials.	
Drill, khaki, coloured, white and grey	10,29,000
Blankets, woollen	10,22,000
Pugree cloths, muslin, calico, etc.	4,21,000
Socks, cotton, and woollen	4,16,000
Tents and Tent components	3,59,000
Cotton waste	3,10,000
Yarn, cotton, and woollen	2,92,000
Jackets, cardigan, jerseys, etc.	2,67,000
Rugs, horse and lohis	1,95,000
Serges	1,60,000
Durries, cotton	1,28,000
Flannelette	1,20,000
Sheets, barrack and hospital	1,12,000
Greatcoats, greatcoat cloth, cloth, drab mixture, etc.	1,09,000
Wool cotton, absorbent	1,06,000
Ropes, head and heel, and picketting	1,01,000

	Amount Rs.
Engineering and allied stores.	
Cement	9,52,000
Road dressing materials	9,51,000
Mild steel sections	7,84,000
Oil, kerosene	7,59,000
Paints including dry pigments	6,33,000
Oil, axle, all-weather	6,00,000
Oil, castor	3,68,000
Pig iron	2,84,000
Oil, linseed, raw and double boiled	2,71,000
Enamels, and varnishes	1,89,000
Oxygen gas	1,71,000
Pipes and specials, cast iron	1,34,000
Cables, electric	1,30,000
Tin tents and components	1,28,000
Wire, copper	1,18,000

Particulars of other Indian articles purchased may be obtained on application to the Department of Overseas Trade.

Scrutiny of Indents on the India Store Department, London.—As a result of the close observance of the Rupee Tender Rules by Departments of the Central Government and of Provincial Governments which have promulgated similar rules and also as a result of general curtailment of demands due to financial stringency, only 835 indents on the Director-General, India Store Department, London, for stores estimated to cost Rs.74,36,880 were received for examination during the year against 915 indents for stores of the estimated value of Rs.93,84,301 examined during the preceding year. It was found necessary to challenge items aggregating Rs.63,573 or .85 per cent. of the total value only in these indents.

The improvement is due to several causes, namely, closer observance of the rules by indenting authorities, increasing facilities for purchase of stores in India and utilisation by several Departments in an increasing degree of the services of the Indian Stores Department for a pre-scrutiny of their forecasts of estimates of expenditure on stores to be imported from abroad as well as of their indents on the Director-General, India Store Department, London, before actual despatch.

Utilisation of the Services of the Indian Stores Department by Authorities outside India.— The services of the Department were utilised by the Resident Engineer, Royal Airship Base, Karachi, for the purchase and inspection of miscellaneous stores, and by the Inspector-General of Police, Singapore, Straits Settlements, for Police uniforms and accoutrements. Cast iron pipes and specials manufactured at Kulti were inspected on behalf of the Singapore Municipality, and tents manufactured at Cawnpore on behalf of the Palestine Government. The Comptroller of Stores,

Western Australian Government Railways and Tramways, Freemantle, also again utilised the services of the Bombay Inspection Circle for the inspection of Cotton Waste.

Purchases of Railway Materials. — The most recently published report on Indian Railways for 1931/32 states that the value of stores purchased by Class 1 Railways (excluding H.E.H. the Nizam's State and Jodhpur Railways, which are mainly the property of Indian States) decreased from Rs.23.75 crores in 1930/31 to Rs.15.99 crores in 1931/32 due to economies effected by railways accentuated by the general fall in prices. The principal items showing decreases were rolling stock (Rs.315 lakhs), tools and stores (Rs.194 lakhs), permanent way (Rs.37 lakhs), electric plant (Rs.53 lakhs), building and station materials and fencing (Rs.28 lakhs), and other materials (Rs.103 lakhs). The principal items of decrease of indigenous materials were rolling stock (Rs.40 lakhs), tools and stores (Rs.80 lakhs), permanent way (Rs.46 lakhs) and other materials (Rs.110 lakhs).

The following table records the amounts spent under each main heading :—

Heading	Value of Imported Materials			Value of indigenous materials	Total purchases 1931-32	Total purchases 1930-31
	Purchased direct	Purchased through Agents in India	Total imported materials			
	Rs. crores	Rs. crores	Rs. crores	Rs. crores	Rs. crores	Rs. crores
Rolling-stock ...	1.90	0.82	2.72	0.57	3.29	6.44
Tools and stores ...	0.28	1.62	1.90	1.84	3.74	5.68
Permanent-way ...	0.05	0.23	0.28	3.40	3.68	4.05
Electric plant ...	0.11	0.70	0.81	0.06	0.87	1.40
Building & station materials & fencing	0.02	0.17	0.19	0.10	0.29	0.57
Bridge Work ...	—	0.08	0.08	0.07	0.15	0.32
Workshop machinery	0.05	0.21	0.26	—	0.26	0.46
Engineer's plant ...	0.03	0.09	0.12	0.02	0.14	0.23
Other materials* ...	—	0.28	0.28	3.29	3.57	4.60
Total	2.44	4.20	6.64	9.35	15.99	23.75

* Other materials consist of coal and coke, stone, bricks, lime and ballast, etc.

Purchases of Stores by Railways through the Indian Stores Department.—The Railway Report states :—

" The total value of stores purchased by railways through the Indian Stores Department during the year amounted to Rs.126.14 lakhs of which Rs.16.92 lakhs represented the value of " textile and leather materials " and Rs.109.22 lakhs that of " engineering, hardware and miscellaneous stores." The list of items the purchase of which by State-managed railways through the Indian

Stores Department is obligatory was revised so as to remove certain ambiguities which had been brought to the Railway Board's notice and a number of articles including certain technical stores, such as standard bridge girders, locomotive boiler tubes, superheater flues, etc., were added to this list. The question of making further additions to the list is under consideration. The value of purchases made through the Indian Stores Department, however, dropped from Rs.127.98 lakhs in 1930-31 to Rs.126.14 lakhs in the current year. This decrease is chiefly due to the fall in market prices and to the efforts made by railways to reduce their purchases to the utmost possible limit consistent with efficiency in view of the existing financial stringency. A comparison of the total value of stores purchased by railways during recent years with the value of purchases made by them through the Indian Stores Department during the same period will show that there has been a considerable increase in the percentage of such purchases."

Since the Railway report was published the list of railway stores to be purchased through the agency of the Indian Stores Department has again been considerably extended and now includes such important items as tyres and axles, vacuum brake fittings, electrical plant and equipment and electrical fittings, train and locomotive lighting plant, practically all textiles, paints, oils and numerous small tools.

During the year 1931/32 orders amounting approximately to 79,203 tons of rails and 3,037 tons of fish plates were placed with the Tata Iron and Steel Company. In this tonnage is included an order for the supply of 16,665 tons of 115 lbs. section rails for the East Indian and Eastern Bengal Railways.

Purchase of Army Requirements.—The position remains largely unchanged since the introduction of the rupee tender system on January 1st, 1931. The bulk of the imported stores contracted for in India are purchased by the Director of Contracts at Army Headquarters, Simla, who acts for all branches of the Army in India. Lethal weapons, munitions of war, technical apparatus and equipment and any other stores required by the Naval, Military or Air Forces of the Crown in India for which drawings, patterns, specifications or designs have been issued, prescribed or announced by the Admiralty, War Office, Air Ministry, Government of India or Commander-in-Chief in India are, by virtue of Rule 8 of the revised Stores Rules, obtained by indent on the India Store Department, London, unless they are available in India in accordance with the prescribed drawing, pattern, specification or design. The Indian Stores Department in India purchase the Army textiles, motor transport vehicles, and also the engineering requirements of the Engineer-in-Chief's branch of Army Headquarters. The remainder of the heterogeneous mass of stores required by a modern army is purchased by the Director of Contracts. The wide variety of the items in which he is interested is shown in the following list of the fifty-two main groups:—

"1. Acids and Chemicals (including artificial manure); 2. Ammunition and Explosives; 3. Batteries and Cells (primary and secondary); 4. Boilers; 5. Brushware; 6. Crockery; 7. Cutlery and Plate; 8. Dairy Requisites; 9. Electric Cables and Wires; 10. Electrical Stores, miscellaneous; 11. Engines,

internal combustion; 12. Engines, steam; 13. Foodstuffs; 14. Footwear; 15. Glassware; 16. Haberdashery; 17. Hardware and Ironmongery; 18. Head wear; 19. Hollow ware, aluminium; 20. Hollow ware, Enamel; 21. Hollow ware, iron; 22. Instruments, musical; 23. Instruments, optical, scientific and surveying; 24. Iron and Steel (and their alloys); 25. Leather and Products; 26. Machinery, Agricultural and Dairy; 27. Machinery, miscellaneous; 28. Machinery, workshop; 29. Metals, non-ferrous, (Ingot and Sections); 30. Mill Stores; 31. Miscellaneous Stores; 32. Oil and Colourmen's Stores; 33. Oils (mineral and vegetable) and Lubricants; 34. Packing materials; 35. Paints, Enamels and Varnishes; 36. Photographic stores; 37. Road Dressing Materials; 38. Rubber Goods; 39. Ship Chandlers' Stores; 40. Soap; 41. Stationery and Drawing Office and General Office Requisites; 42. Tanning materials; 43. Telegraph, telephone and wireless stores; 44. Textiles; 45. Timber; 46. Tinware; 47. Tools; 48. Vehicles and Accessories; 49. Weighing Appliances; 50. Wickerwork; 51. Wire (steel and iron) and Products; and 52. Woodware."

In view of the imperative need for absolute reliability in Army equipment, the greatest stress is laid by the Director of Contracts upon sound quality. Purchases are made at the keenest possible prices, but the Army Department cannot afford to take risks by reducing quality, either in order to effect economies or to encourage local industries.

The Deputy Director-General (Stores) of the Indian Medical Service purchases, through his medical stores depots at Calcutta, Bombay, Madras, Lahore and Rangoon, considerable quantities of drugs, medicines, dressings and surgical instruments and apparatus. A large proportion of the medical stores required is still bought by Home Indent on the Director-General of Stores in London. Local purchases of indigenous materials tend to increase. The medical stores depots at Madras and Bombay now manufacture (or rather make-up) a large number of preparations from indigenous raw materials. In Bombay, a local firm manufacture surgical instruments in a factory adjacent to the depot. These instruments are stated to meet the need of many Indian surgeons or hospitals for instruments which, although perhaps not being of the very finest quality and finish as used in Europe or the United States, are sufficiently good for the purpose and are attractive on account of their low price.

Department of Posts and Telegraphs.—The Director-General of Posts and Telegraphs in his Annual Report for 1931/32 states that the stores used in the telegraph branch of the department consist principally of line material, such as posts, brackets, insulators and wires; and instruments of various types. These are obtained by manufacture in the departmental workshops at Alipore, Calcutta, which are fully equipped shops capable of turning out work of high quality; by purchase through the agency of the Indian Stores Department; or by direct purchase in the case of special apparatus. The principal store depot is at Alipore but important stocks are held at Bombay, Karachi, Lahore, Madras and Rangoon. Provision is made in these for store requirements for

telegraph work done for railways and canals as well as for departmental requirements. The telegraph store transactions during the years 1930/31 and 1931/32 were :—

	1930/31. Rs.	1931/32. Rs.
Opening balance ...	58,99,000	54,26,000
Receipts	82,05,000	70,72,000
Issues	86,78,000	68,12,000
Closing balance ...	54,26,000	56,86,000

The Indian Canteen Contractors' Syndicate Ltd.—I have traced, in previous reports, the origin and formation of this quasi-official organisation. The following note, specially contributed by Mr. A. C. Murray, the Managing Director, will be read with interest by United Kingdom purveyors of provisions and canteen stores :—

" This Co-operative Company, created in 1928, by the Canteen Contractors of the British Army and Royal Air Force in India for the purchase and distribution of all their supplies, reports continued increase of trade for the year 1932. And this in spite of " cuts " and economy schemes by which units themselves now undertake many services hitherto the province of the contractor.

The advantage of centralised buying, however, is now so appreciated by Members that all requirements, whether for Refrigerators or Mineral Water Bottling Plants, Bacon Slicing Machines or Billiard Cues are placed automatically on their Syndicate. Billiard accessories are, in fact, one of the Syndicate's latest activities for which it is setting up its own workshops, with a staff of expert mechanics to deal with the maintenance of the many hundreds of billiard tables throughout the Messes and Canteens in India.

Another innovation in 1933 is the holding of a series of travelling Stock Rooms to visit eight of the most central military stations, to which some 40 others are conveniently adjacent. The tour, which commences in May and extends from Peshawar to Secunderabad, is in the nature of an experiment. It was devised primarily to introduce a number of the Syndicate's own lines, packed specially for it, to its Contractor-Members. A few manufacturing firms, interested more especially in the Christmas trade were quick to hear of it and a limited number have been allowed to participate, as accommodation has permitted. On this account invitation to view the displays and place orders has been extended, not merely to the Military and their Contractors, but to bazaar merchants also. The cost to any firm participating is £45 for the round tour of 80 days, but some have elected to have their own representatives also in attendance. The venture if as successful as is promised, is capable of bigger developments in the future.

In furtherance of the " Buy British " campaign at home the Syndicate set itself to match, with goods of Empire origin, many foreign lines hitherto in universal demand. Its efforts resulted in more than one American firm setting up packing-plants in Canada, merely to keep its trade. Others who established factories in the United Kingdom, now supply the Syndicate with produce from home ports. Later, as the newly established canning companies in England master the very special difficulties of tinning foodstuffs for the tropics, the big trade, which in spite of duties, goes still to Holland for cheese and Norway for fish and sardines, may safely be transferred to home producers.

The Canteen Contractors' Syndicate Ltd., it will be remembered, is not merely the officially recognised agency for the supply of military canteens in India in peace. It is also the nucleus of the Canteen Service in War; when stocks, staff and organisations at its four port-depôts, Karachi, Calcutta, Bombay and Madras, may be taken over by Government. To this end the latter reserves to itself the appointment of the Syndicate's Managing Director. The present holder of the post is Mr. A. C. Murray, to whom enquiries should be addressed at the new Head Office at Oriental Building, McLeod Road, Karachi, India."

CHAPTER IV

REVIEW OF THE ACTIVITIES OF THE INDIAN TARIFF BOARD DURING THE PERIOD SEPTEMBER 1931 TO MARCH 1933, TOGETHER WITH NOTES ON THE FURTHER PROTECTION ACCORDED TO CERTAIN INDIAN INDUSTRIES

The last Report on the Conditions and Prospects of United Kingdom Trade in India dealt with the period to September, 1931. In order to preserve a continuous record of the activities of the Indian Tariff Board, the subject matter of the present chapter extends beyond the period generally covered by this report and includes the main activities of the Board from September, 1931 to 31st March, 1933.

Inquiry into the Indian Sugar Industry.—In my last Report, I outlined the main recommendations embodied in the Board's Report, which was published in March, 1931, and stated that the Government of India in the budget for 1931/32 had raised the sugar import duty as a revenue measure to Rs.7-4-0 per cwt. To this was added the 25 per cent. surcharge of Rs.1-13-0 levied under the Indian Finance (Supplementary and Extending) Act, 1931, making Rs.9-1-0 per cwt. in all, which has remained in force since the 30th September, 1931.

Decision of the Government of India.—In Resolution No. 127T (29) dated the 30th January, 1932, the Government of India announced its decision on the recommendations of the Board in the following terms :—

" On a representation from the Imperial Council of Agricultural Research, the Government of India in their Resolution, No. 127-T (19) dated the 20th May, 1930, directed the Tariff Board to enquire into the question of granting protection to the sugar industry, a term which was intended to include the grower of sugar cane in India, the manufacturer of different kinds of indigenous raw sugar (gur) and the manufacturer of crystalline sugar. The Report of the Board was published for general information on the 13th March, 1931.

2. The Board have found that the case for protection to the sugar industry rests on the importance of cane cultivation in the agricultural economy of India and that in order to maintain and, if possible, increase the area under cane a stimulus must be provided for the manufacture of refined sugar. The Government of India accept this finding.

3. The Board have recommended—

(1) That a protective duty be imposed on all classes of sugar, including sugar candy, at the rate of Rs.6-4-0 per cwt. for a period of fifteen years;

(2) That an additional duty at the rate of Re.1 per cwt. be imposed on all classes of sugar, including sugar candy, for the first seven years of the protective period;

(3) That power be taken to impose by executive order an offsetting duty, when necessary, at the rate of 8 annas per cwt., should the price of sugar fall below Rs.4 a maund;

(4) That the duty on molasses should remain unaltered;

(5) That a grant of not less than Rs.10 lakhs be made annually from Central Revenues for sugar research;

(6) That the Bill to be introduced to give effect to the proposed duties should contain a provision enabling Government to call for such returns from sugar factories as may be considered necessary;

(7) That the Bill should contain a provision enabling Government to make rules requiring sugar factories to post notices specifying such matters relating to the prices paid for sugar cane as may be thought necessary;

(8) That no assistance in the form of a loan, grant, subsidy or other concession be given to a sugar company unless it complies with the conditions laid down in paragraph 292 of the Fiscal Commission's Report, i.e., it is incorporated and registered in India with rupee capital, has a reasonable proportion of Indian directors and offers facilities for training Indians at Government expense;

(9) That new sugar companies coming into existence during the protective period be compelled, by such means as Government may consider practicable, to be registered as public companies with rupee capital.

4. The Government of India accept the recommendation of the Board that a single rate of duty should apply to all classes of sugar, but consider an initial protective period of fifteen years to be unduly long. Economic conditions are at present so disturbed that it is impossible to foretell what rate of duty may be necessary for protective purposes after the lapse of seven years. In these circumstances the Government of India have decided to propose that a protective duty at the rate of Rs.7-4-0 per cwt. be imposed on all classes of sugar until the 31st March, 1938, and that provision be made in the statute for a further enquiry before the end of that period into the question of continuing protection to the industry.

5. The Government of India do not propose to accept the Board's recommendation that power should be taken to impose an additional duty in the event of the price of imported sugar falling below a certain level. Power to increase statutory duties by executive action should not, in the opinion of the Government of India, be taken unless the necessity for it as part of the protective scheme can be clearly demonstrated and in the present instance they are not satisfied that such necessity exists.

6. The Government of India accept the recommendations of the Board that the duty on molasses should remain unaltered and that power should be taken by statute to call for such returns from sugar factories as the Governor General in Council may deem it necessary to prescribe. They feel considerable doubt, however, whether rules requiring sugar factories to post notices regarding prices paid for sugar cane would have much practical result and they do not, therefore, propose to include provision for that purpose in the protective Bill.

7. The Board's recommendation that an annual grant of not less than Rs.10 lakhs should be made for sugar research will receive the careful consideration of the Government of India, but in present financial circumstances they regret that no undertaking to carry it into effect can be given.

8. The Board's recommendation, that no assistance in the form of a loan, grant, subsidy or other concession should be given to a new company unless it complies with the conditions laid down in paragraph 292 of the Fiscal Commission's Report embodies a principle already accepted by the

Government of India and one which finds a place in certain existing provincial Acts. Its practical application is ordinarily a matter for Local Governments. The recommendation of the Board that new sugar companies should be compelled to be registered as public companies involves the introduction of a new principle which the Government of India are unable to accept. In their opinion prohibition of the formation of private companies to develop the sugar industry would impose an undesirable handicap upon enterprise.

9. The Government of India propose to introduce legislation immediately to give effect to the decisions stated above."

The Sugar Industry (Protection) Act, 1932 was passed on the 8th April, 1932. It transferred sugar and sugar-candy, excluding confectionery, from the non-protective special tariff to the protective tariff, thereby raising the duty on sugar below 8 D.S. and sugar-candy to the same level as that on white sugar, i.e., Rs.7-4-0 per cwt. plus the 25 per cent. surcharge of Rs.1-13-0 making Rs.9-1-0 in all. The Act further stated that the basic duty of Rs.7-4-0 should have effect up to the 31st March, 1938, but if the Governor-General is satisfied at any time during the currency of the Act, after such enquiry as he thinks fit, that foreign sugar is being imported at such a price as to render the existing protection ineffective, this rate may be increased.

Inquiry into the Salt Industry.—In my last report I traced the events leading up to the passage of the Salt (Additional Import Duty) Act, 1931, by which an additional duty of 4½ annas per maund was imposed on salt imported into any port in British India from overseas sources other than Aden or Perim. This duty of 4½ annas is levied over and above the excise duty for the time being leviable on salt manufactured in the place where the import takes place. The rate of such excise duty on the 1st January, 1933, and until further notice is Rs.1-9-0 per maund.

The Indian Legislature in March, 1932 extended the levy of the additional duty of 4½ annas per maund until the 31st March, 1933.

In November, 1932, the Government of India, having received representations that foreign salt was being imported into Bengal at prices below the fair selling rate fixed by the Tariff Board, appointed the Collector of Customs, Calcutta, to conduct an inquiry under Section 4 of the Act. The inquiry was held in Calcutta during November, 1932, and, as a result of it, the Government of India decided that no case had been made out for imposing an additional duty, but that should any marked further reduction, not justified on the ground of further reduction in freights, take place in the general level of prices, the position might require reconsideration.

In March, 1933, the Salt Additional Import Duty (Extending) Act was passed which again extended the additional import duty on foreign salt to March 31st, 1934, but reduced the surcharge on this salt from 4½ annas to 2½ annas per maund with effect from the 30th March, 1933.

Inquiry into the Heavy Chemical Industry.—By the terms of the Heavy Chemical Industry (Protection) Act, 1931, protective specific duties were imposed from the 1st October, 1931 on nitric, hydrochloric and sulphuric acid, alum, aluminium sulphate, copper sulphate, magnesium chloride, magnesium sulphate, sodium sulphate, sodium sulphide and zinc chloride with effect until the 31st March, 1933, in the first place, pending further consideration of the possibility of reorganising the industry on an economic basis and expert investigation of the superphosphate bounty scheme.

Government of India Decision.—In Resolution No. 199-T (17) of the 1st April, 1933, the Commerce Department of the Government of India make it clear that the limited period of protection was granted to enable consideration to be given to the following questions:—

(a) Whether there was any likelihood of the principal manufacturers of heavy chemicals in India reorganising the industry in combination with each other and of so making economic production possible.

(b) Whether the actual and potential demand in India for superphosphate was sufficiently large and assured to justify the grant of State assistance in the form of a bounty to the manufacturers of this fertiliser.

(c) Whether superphosphate was capable of being manufactured in India at a cost which would enable it at any time to compete with the imported article on equal terms.

In regard to question (a) enquiry had shown that there was no intention on the part of chemical manufacturers to work for more economic production by a combination of interests; moreover the Indian market for heavy chemicals appeared insufficient to render truly economic production by the existing concerns possible. Investigations conducted by the Imperial Council of Agricultural Research, in regard to question (b) tended to show that the potential demand could not be stated with certainty to justify State assistance and as regards question (c) the most carefully made estimates suggested that no prospect existed of manufacture in India at a cost sufficiently low to enable it to compete with the imported article.

The Government of India accordingly decided to place no proposals before the Legislature for the continuance of protection to the heavy chemical industry after the 31st March, 1933. The protective duty on magnesium chloride, which was in force until the 31st March, 1939, remained unaffected by this decision.

Lapsing of the Protective Duties on Heavy Chemicals.—The protective duties accordingly lapsed on the 31st March, 1933, except that on magnesium chloride which remains in force until the 31st March, 1939. The heavy chemicals governed by the Act are now assessed as follows:—

(1) Magnesium chloride under No. 72/141B of the Indian Customs Tariff at 8 annas 9 pies per cwt. or 25 per cent. whichever is higher.

(2) Hydrochloric, nitric and sulphuric acids, aluminium sulphate, copper sulphate, sodium sulphate and sodium

sulphide under No. 74B/181 at 30 per cent. standard and **20 per cent. preferential.**

(3) Magnesium sulphate and zinc chloride as Magnesium and Zinc compounds, not otherwise specified, and alum, under 74A/88 at 25 per cent. *ad valorem.*

Inquiry into the Bamboo Paper Industry.—In the 1930/31 report, reference was made to the inquiry which had been initiated by Government of India Resolution No. 202-T (26) of the 26th March, 1931, and which was then in progress.

Conclusions of the Board.—The Board reported on the 15th October, 1931, and a summary of its findings can be inspected at the Department of Overseas Trade.

The main recommendations made by the Board were :—

(1) Protection to the bamboo pulp and paper industry should be continued by means of a duty.
(2) The duty on imported paper should be imposed at the same rate and on the same articles as at present.
(3) A duty should be imposed on imported wood pulp at the rate of Rs.45 per ton.
(4) The protective duties on paper and pulp should remain in force for a period of seven years from the 1st April, 1932.
(5) A conference should be held with representatives of the different interests to decide the proper definition of the classes of paper to be subject to the protective duty.
(6) Compliance by the paper-making companies with the principles stated in para. 292 of the Fiscal Commission's Report should be made a condition precedent to the grant of concessions for the exploitation of forests and to purchases of paper by Government.
(7) The Paper Pulp Section of the Forest Research Institute should be developed and should undertake co-ordination of experimental work on bamboo.

The Government of India in Resolution No. 202-T (28) of the 3rd February, 1932, accepted the necessity for giving protection to the bamboo paper industry for a further period by means of a duty on paper and to the bamboo pulp industry by means of a duty on imported pulp. They also accepted the Board's recommendations regarding the rate of the two duties and the additional period of protection required. As regards the definition to be embodied in tariff schedule of the articles chargeable with the protective duty, the Government of India felt unable to accept the Board's recommendation that, while the protective duty should continue to be imposed upon printing and writing papers, a definition of the kinds of paper to be classed under those two heads should be determined according to trade usage after consultation with representatives of the different interests. The view of the Government of India was that the definition of articles to which the protective tariff is to apply should indicate as precisely as possible the intention of the Legislature and should be so framed as to include any such articles as can be produced economically in the country or may compete with an indigenous product, and for this purpose trade usage provides no guide. At the same time, the Government of India

appreciated the fact that the existing statutory definition of the protected classes of paper gives rise to difficulties of interpretation, and, stated that if protection were to be given for a further period to the paper industry, they proposed to proceed without delay to revise the basis of assessment to duty of imported paper in consultation with the different interests concerned in such a way as to obviate disputes regarding the interpretation of the tariff and to place the results of such revision before the Legislature at the earliest opportunity. As, however, the time remaining before expiry of the existing Act was insufficient to enable new definitions to be properly determined, the Government of India considered that for immediate purposes the best course will be to re-enact the law with the existing definitions.

The Bamboo Paper Industry (Protection) Act, 1932 was passed on March 5th, 1932 and extended the dates of operation of the Acts of 1925 and 1927 to the 31st March, 1939. It also altered from 65 to 70 the maximum percentage of mechanical wood pulp in the fibre content of printing paper which is assessable at the protective rate (with surcharge) of one anna and three pies per pound under Item No. 155 of Schedule II to the Indian Tariff Act, 1894, as subsequently amended, and transferred wood pulp from the free list to the protective tariff by imposing thereon a specific duty of Rs.45 per ton (Rs.56.4 with surcharge). This duty shall also remain in force until March 31st, 1939.

Inquiry into the Wire and Wire Nail Industry.—*Decision of the Government of India.* In Resolution No. 362-T (16) dated the 3rd February, 1932, the Commerce Department of the Government of India record their decision as follows:—

" In their Resolution No. 362-T (11) dated the 7th May, 1931, the Government of India remitted to the Tariff Board for inquiry an application from Messrs. The Indian Steel Wire Products, Tatanagar, asking for the restoration of protection to the wire and wire nails industry. The Board's report, which was submitted on the 15th October, 1931, has been published for general information to-day.

2. The Board's conclusions may be summarised as follows. In order to justify the grant of protection to the manufacture of wire and wire nails in India it is necessary that these products should be made from Indian steel, and for this purpose the establishment of a wire rod mill in India is essential. Since no mill exists in India capable of rolling wire rod an application for protection to the wire and wire nails industry is premature. But one firm, The Indian Steel Wire Products at Tatanagar, is at present manufacturing wire and wire nails from imported wire rod and is prepared, if protection is granted to the industry, to erect a mill capable of rolling wire rod from Indian steel billets. The output of this mill would be large enough to secure an economical level of costs and a market exists in India sufficient to absorb the output of the mill, including its products other than the wire rod used in the manufacture of wire and wire nails. If the firm obtains no assistance now in carrying on manufacture from imported raw material it will be compelled to stop working, and temporary assistance should be granted because the manufacture of wire and wire nails was given protection in 1924 and because the present proprietor of the concern, when he purchased the works, was justified in assuming that though protection had been withdrawn in 1927, its

restoration before 1930 was a reasonably certainty. The Board's recommendation is that so much assistance be granted to the industry as will enable it to maintain itself until such time as it may reasonably be expected to make arrangements for supplying itself with material drawn from indigenous sources. It is calculated that if a selling price of Rs.190 per ton be guaranteed for wire nails, the manufacturer should obtain a profit on his present output of about 5 per cent. on his total capital expenditure, and the Board considers this to be a fair price for the purpose of temporary assistance. It accordingly recommends the imposition of a duty on wire and wire nails at the rate of Rs.45 per ton until the wire and wire nail industry's claim to substantive protection has been investigated in the course of the next statutory enquiry into the iron and steel industry. The Board also recommends that the existing concession should be continued under which Messrs. The Indian Steel Wire Products are permitted to import wire rod free of duty.

3. The Government of India have carefully considered the Board's report and have decided to accept its recommendations. They agree with the Tariff Board that until the industry can obtain its principal raw material in India the claim to protection cannot be substantiated. There is, however, a reasonable prospect that the firm now manufacturing wire and wire nails in India will before long be in a position to supply itself with indigenous raw material, and, taking into account all the circumstances the Government of India consider that the grant of tariff assistance for a limited period to afford the industry a further opportunity of removing the disability under which it labours would be in the national interest. Their attitude in the matter has not been influenced by the argument that the firm in question has an equitable claim to assistance owing to the circumstances on which it undertook manufacture, for in their view the claim breaks down and has not been established. But they consider it of great importance to the successful establishment in India of the steel industry as a whole that new branches of the industry should be created, and the market for steel made in India thereby widened. The information in their possession leads them to be believe that the manufacture of wire rod in India presents no insuperable difficulties, but unless assistance is given now such manufacture is likely to be postponed for an indefinite period. They desire, however, to make it plain that when machinery for the manufacture of wire rod has been installed and production commences, that fact will not in itself constitute a valid claim to protection. It will still be necessary for the industry to show to the satisfaction of the Tariff Board and the Legislature that manufacture under the new conditions is likely to be economical and, in short, that the principles laid down by the Fiscal Commission are satisfied.

4. In accordance with the decision stated in the preceding paragraph the Government of India will introduce legislation immediately to impose a protective duty of Rs.45 per ton on the articles recommended by the Board to operate until the 31st March, 1934. They also propose to continue to allow to The Indian Steel Wire Products the concession which they enjoy at present in respect of the duty on imported wire rod."

The Wire and Wire Nail Industry (Protection) Act, 1932 became law on March 5th, 1932, and brought again under the protective tariff wire (other than barbed or stranded fencing wire, wire rope or wire-netting) and wire nails by imposing thereon a duty of Rs.45 per ton. These duties have effect up to the 31st March, 1934, but are exempt from the 25 per cent. surcharge imposed by the Indian Finance (Supplementary and Extending) Act, 1931.

Inquiry into the Electric Wire and Cable (other than Paper Insulated Cables) Industry.—As notified in the 1930/31 report, this inquiry was remitted to the Tariff Board in Commerce Department Notification No. 38 (T)-20 dated the 11th May, 1931.

The Tariff Board, in their report dated the 15th October, 1931 came to the conclusion that the manufacture of electric wires and cables is not an industry which satisfies the conditions laid down by the Fiscal Commission. They, therefore, made no recommendations regarding the application for protection submitted by the Indian Cable Company. This finding was accepted by the Government of India in their Resolution No. 707-T (5) of the 6th February, 1932.

Inquiry into the Glass Industry.—This inquiry was referred to the Tariff Board in October, 1931. The Board's report was submittd to the Government of India in March, 1932, and is still being examined by the Government of India who have not yet indicated their decision. Meanwhile, the report has not yet (May, 1933) been published.

Inquiry into the Indian Cotton Mill Industry.—On April 9th, 1932, the Government of India issued Resolution No. 341-T (150) which reads as follows :—

" By the Cotton Textile Industry (Protection) Act, 1930, protective duties were imposed on cotton piecegoods for a period of three years in order to give the cotton mill industry in India temporary shelter against foreign competition. These duties are fixed at a lower rate on piecegoods of British than on those not of British manufacture. By the same Act the operation of the duty imposed by the Indian Tariff (Cotton Yarn Amendment) Act, 1927, was extended for a further period of three years on account of the unfair competition arising from the prevalence of inferior labour conditions in China. These duties will expire on the 31st March, 1933. An assurance was, however, given by the Government to the Legislature, when the Cotton Textile Industry (Protection) Bill was under consideration, that before the termination of the three-year period the effect of the duties on the production of cotton piecegoods in India and on the Indian cotton textile industry would be examined in a Tariff Board inquiry.

Since the Cotton Textile Industry (Protection) Act was passed three noteworthy changes have occurred. In the first place, the rates of duty imposed on cotton piecegoods under the Act have been raised by two successive Finance Acts, and are now levied at a rate substantially higher than the Legislature found to be necessary to give temporary shelter to the indigenous industry. In the second place, a very large increase has occurred in the imports of piecegoods made wholly or partly of artificial silk, and the duties on such goods have been raised to the rates applicable to goods made wholly or partly of real silk. Finally, the Government of India have decided to discuss at the forthcoming Imperial Conference at Ottawa the question whether Great Britain and India should enter into a trade agreement embodying a preferential tariff regime so designed as to benefit the trade of both countries.

The Government of India consider that the Tariff Board enquiry should now be undertaken. The Board is requested to examine the following questions and to make recommendations :—

(1) whether the claim of the Indian cotton textile industry to protection has been established;

(2) if the claim is found to be established, in what form protection should be given and to what extent;

(3) if it is proposed that protection should be given by means of import duties—

(*a*) whether the same rate of protection is required against the competition of goods manufactured in the United Kingdom as against the competition of goods manufactured elsewhere; and

(*b*) what rates of duty are recommended in respect of—
(i) cotton piecegoods,
(ii) piecegoods made wholly or partly of artificial silk, and
(iii) cotton twist and yarn, according as they are manufactured—
a. in the United Kingdom,
b. elsewhere.

In making its recommendations the Tariff Board will take all relevant considerations into account including that stated in part (*b*) of the Resolution adopted by the Legislative Assembly on the 16th February, 1923. In particular, the Board is requested to consider how its recommendations will affect the handloom weaving industry."

An elaborate enquiry was carried out by the Board throughout the summer months of 1932 and the final report of the Board was signed on the 10th November, 1932, and submitted to the Government of India. The whole question is still under consideration in the light of this report and of the Ottawa Trade Agreement. The Government of India have not yet published either the Board's Report or their recommendations thereon.

Emergency Inquiry regarding the Grant of Additional Protection to the Cotton Textile Industry.—During the spring and early summer of 1932, the Indian market was flooded with Japanese piece goods imported at prices which, largely on account of the depreciation of the yen exchange, rendered completely ineffective the protection afforded by the existing duty against Japanese goods of 31¼ per cent. *ad valorem*. Great damage was done to the Indian Industry and, in response to urgent appeals, the Government of India by Resolution No. 341-T (161) of the 25th July, 1932, remitted the matter to the Tariff Board with the following terms of reference:—

" The Government of India have received an application from the Indian Cotton Textile Industry requesting that the Governor General in Council, in exercise of his powers under Section 3 (5) of the Indian Tariff Act, 1894, should increase the duty leviable on cotton piecegoods not of British manufacture under item 158 in Part VII of the Import Tariff on the ground that such articles are being imported into British India at a price likely to render ineffective the protection intended to be afforded by such duty to similar articles manufactured in India.

2. The Government of India have decided that an immediate inquiry should be made by the Tariff Board with the following terms of reference:—

To report whether cotton piecegoods not of British manufacture are being imported into British India at such a price as is likely to render ineffective the protection intended to be afforded by the duty imposed on such articles under Part VII of the Second Schedule of the Indian Tariff Act, 1894, by the Cotton Textile Industry (Protection) Act, 1930, to similar articles manufactured in India; and, if so, to consider—

(*a*) to what extent, if any, the duty on cotton piecegoods not of British manufacture should be increased and whether in respect of all cotton piecegoods not of British manufacture or in respect of cotton piecegoods, plain grey only or of cotton piecegoods, others, only;
(*b*) whether the duty should be increased generally, or in respect of such articles when imported from or manufactured in any country or countries specified; and
(*c*) for what period any additional protection found to be required should be given,

and to make recommendations."

Report of the Tariff Board.—After a most expeditious inquiry, the Board reported on the 2nd August, 1932, their recommendations being as follows :—

" We suggest that Government should immediately examine the possibility of using their powers under section 3 (2) of the Tariff Act in the case of piece-goods imported from a country with a depreciated exchange, to raise the value of the goods for Customs purposes in such proportion as to secure the continuance of the protection intended for the Indian industry. We believe that as a means of meeting the present emergency such a method will be found to be more adaptable and less liable to cause general dislocation. It will also help to safeguard the interests of the consumers. Its actual working with reference to the Japanese exchange may be illustrated as follows :—

	Nett price	Duty	Fair selling price
Price assumed in March, 1930	100	20	120
Equivalent price at current price of cotton	87	17	104
(1) If rupee-yen exchange stands at about 105-nett price ($87 \times \frac{165}{136}$) =	67	—	—
Duty required to restore fair selling-price—104 minus 67 ... ... =	—	37	—
Estimated value required for a duty of 37 at 31¼ per cent.	118=approximately 1¾ times landed cost (67)		
(2) If rupee-yen exchange stands at about 110-nett price ($87 \times \frac{110}{136}$) =	70	—	—
Duty required to restore fair selling price—104 minus 70 ... ... =	—	34	—
Estimated value required for a duty of 34 at 31¼ per cent.	110=approximately 1½ times landed cost (70)		
(3) If rupee-yen exchange stands at about 115—nett price ($87 \times \frac{115}{136}$) ... =	74	—	—
Duty required to restore fair selling price—104 minus 74 ... ... =	—	30	—
Estimated value required for a duty of 30 at 31¼ per cent.	96=approximately 1⅓ times landed cost (74)		
(4) If rupee-yen exchange stands at about 120—nett price ($87 \times \frac{120}{136}$) ... =	77	—	—
Duty required to restore fair selling price—104 minus 77 ... ... =	—	27	—
Estimated value required for a duty of 27 at 31¼ per cent.	86=approximately 1⅛ times landed cost (77)		
(5) If rupee-yen exchange stands at about 125—nett price ($87 \times \frac{125}{136}$) ... =	80	—	—
Duty required to restore fair selling price—104 minus 80 ... ... =	—	24	—
Estimated value required for a duty of 24 at 31¼ per cent.	77=approximately equivalent to landed cost (80)		

On the results shown above, we suggest that the tariff values of piece-goods imported from Japan should for Customs purposes be estimated from time to time at the current landed cost multiplied by the figures shown in the

following table. We have provided in this table only for two rates of valuation since frequent variations would be clearly undesirable. These rates are approximately the averages of the figures corresponding to different ratios of exchange :—

When exchange is not above 115	1⅝
When exchange is above 115 but not above 125	1¾
When exchange is above 125	1

It is necessary to provide that once a particular figure is adopted for estimating the value, it should not be altered for a period of at least three months and no new figure should be adopted unless the corresponding ratio of exchange has been in force for at least four weeks. The rates of exchange should be taken at Banks' Selling Rates.

If this scheme is not accepted we propose that the necessary additional assistance should be provided by raising the ad valorem duty on cotton piecegoods from 31½ per cent. to 50 per cent. The increased rate of duty should be in force till the 31st March, 1933. In this connection it is necessary to draw attention to the Indo-Japanese Trade Convention by which India is required to grant most favoured nation treatment to imports from Japan. We believe that there is authority for the view that duties of this kind imposed for the purpose of safeguarding a national industry against the competition of goods imported at unreasonably low prices from another country do not infringe the most favoured nation clause. We recognise at the same time that the issue is controversial and that the Indo-Japanese Trade Convention may be regarded as a bar to the imposition of the additional duty on goods imported from Japan only. In this case we propose that the duty should be made applicable to all goods not of British manufacture. We have shown that Japan is the only country whose export trade to India has gained an advantage by the depreciation of its exchange in relation to Indian currency. There is no logical reason for increasing the duties on imports from countries whose currency has actually risen in value as compared with the rupee. But we regard the phenomenal increase in the imports from Japan as such a serious menace to the Indian industry that an increase in the duties on Japanese goods is imperative, and consequently if the most favoured nation clause in the Trade Convention with Japan is held to bar any proposal to increase the duties on Japanese goods alone, we have no hesitation in recommending that the increase of duty be applied to all goods not of British manufacture. We consider that this proposal will not involve any very serious addition to the consumers' burden for the quantity of goods imported from countries other than the United Kingdom or Japan has in the last three years never reached 5 per cent. of the total imports, while the value of the goods imported from these countries in the last three years has varied between 7.3 and 6.8 per cent. of the total value of imported piecegoods.

Since the fall in prices is not confined either to plain grey goods or to other goods but affects all classes we consider that the additional duty should be levied on all cotton piecegoods. We have made no proposals regarding the specific duty on plain grey goods. Section 3 (5) of the Tariff Act restricts the power of the Governor General in Council to increase or reduce duties to the "higher duty" chargeable on articles not of British manufacture. The specific duty being the same in the case of British and non-British goods is therefore outside the scope of the section. We have also made no proposals regarding yarn, hosiery and other cotton manufactures nor regarding artificial silk goods. The duties on these articles are not included in Part VII of Tariff Schedule II to which section 3 (5) of the Tariff Act is confined."

Decision of the Government of India.—The Government of India in Notification No. 341-T (164) of August 30th, 1932, promulgated its findings in the following terms :—

" In exercise of the powers conferred by sub-section (5) of section 3 of the Indian Tariff Act, 1894 (VIII of 1894), the Governor General in Council,

having considered the report of the Indian Tariff Board presented in pursuance of the Resolution of the Government of India in the Commerce Department, No. 341-T (161) dated the 25th July, 1932, is pleased to increase the duty chargeable under Part VII of the Second Schedule to the said Act on the articles specified in the annexed table to the extent set forth therein and is further pleased to direct that the increased rates shall remain in force until the 31st March, 1933."

TABLE

Article, with number of entry in Part VII of the Second Schedule under which chargeable	Present rate of duty chargeable under the Indian Tariff Act.*	Increased rate of duty †
158. Cotton Piece-Goods (other than fents of not more than nine yards in length) (a) plain grey, that is, not bleached or dyed in the piece, if imported in pieces which either are without woven headings or contain any length of more than nine yards which is not divided by transverse woven headings—		
(ii) not of British manufacture	20 per cent *ad valorem* or 3½ annas per pound, whichever is higher.	50 per cent *ad valorem* or 5¼ annas per pound, whichever is higher.
(b) Others—		
(ii) not of British manufacture	20 per cent. *ad valorem*	50 per cent. *ad valorem*.

*Subject to surcharges bringing the rates up to 31¼ per cent. *ad valorem* and 4⅜ annas per pound.

†Not subject to surcharges.

Indefinite Extension and Further Increase of the Additional Duty on Non-British Textiles.—By Notification 341-T (5) dated the 31st March, 1933, the Government of India amended their notification of the 30th August by omitting the words and figures " and is further pleased to direct that the increased rates shall remain in force until the 31st March, 1933." This extended the duties until such time as they might be the subject of a further notification. Notification 341-T (5) as so amended was superseded by Notification 341-T (8) of 7th June, 1933, which further increased the duties on piece goods not of British manufacture to 75 per cent. *ad valorem* or 6¾ annas per pound, whichever is the higher, in the case of plain grey, and 75 per cent. *ad valorem* in the case of other piece goods.

Inquiry into the Indian Sericultural Industry.—The Government of India, by Resolution No. 607-T (1) of the 3rd

December, 1932, remitted to the Tariff Board the question of protection for the Indian sericultural industry in the following terms " It has been represented to the Government of India that notwithstanding the existing high revenue duty on imported raw silk the recent increase in imports of that commodity from foreign countries constitutes a grave menace to the existence of the indigenous sericultural industry. It has, therefore, been decided that the claims of the industry to protection should be the subject of an inquiry by the Tariff Board. The Board is requested to examine the following questions and to make recommendations :—

(*a*) whether, having regard to the nature and extent of the competition of raw silk from foreign countries, the claim of the sericultural industry to protection has been established; and

(*b*) if the claim is found to be established, in what form protection should be given and to what extent.

In making its recommendations the Board will take into account all relevant considerations including those stated in parts (b) and (c) of the Resolution adopted by the Legislative Assembly on the 16th February, 1923. In particular, the Board is requested to consider how its recommendations will affect the handloom weaving industry."

The inquiry is still proceeding.

CHAPTER V

DETAILED EXAMINATION OF THE LEADING IMPORT TRADES WITH SPECIAL REFERENCE TO CHANGES IN THE CHARACTER, VOLUME AND ORIGIN OF THE IMPORTS DURING THE FISCAL YEAR APRIL 1st, 1932 TO MARCH 31st, 1933

Note.—Unless otherwise stated, the statistics in this section are drawn from the publications of the Department of Statistics, Government of India, and relate to imports on private account only. Since all Indian statistics are now given in rupees and not in sterling, and in view of the labour which would be involved in converting into sterling, the lakh of rupees (Rs.100,000 *or* £7,500 *at* 1s. 6d. *exchange*) *has been taken as the usual unit. It is fully realised that this is not so convenient a unit as the £ sterling.*

MANUFACTURED AND MAINLY MANUFACTURED GOODS

Cotton Textiles. —*Yarns.*—Partly as a result of improved trading conditions following the subsidence of the political campaign and partly on account of the greater purchasing power of the handloom weavers arising from the realisation of their gold savings and ornaments, the total imports of cotton twist and yarns rose from 31,575,100 lbs. valued at Rs.299 lakhs to 45,103,382 lbs. valued at Rs.379 lakhs. This satisfactory expansion, however, mainly benefited Japan, whose shipments nearly trebled in quantity from 6,206,197 lbs. to 18,148,809 lbs. and doubled in value from Rs.83 to Rs.161 lakhs.

The following table gives the imports of grey yarns arranged according to counts :—

[TABLE]

Counts	1931/32 lbs.	1932/33 lbs.
Nos. 1 to 10 ...	Nil	Nil
,, 11 to 20 ...	116,584	692,822
,, 21 to 30 ...	472,410	717,397
,, 31 to 40 ...	12,771,040	19,378,837
Above 40's ...	4,389,223	5,382,496
Twofolds	3,708,535	5,404,646
Total imports (grey)	21,457,792	31,576,198

In 11's to 20's, the increase was almost entirely secured by Japanese yarns at the expense of China. While arrivals from the United Kingdom remained stationary at 70,000 lbs. weight, those from Japan rose from a trivial quantity to 614,000 lbs. The United Kingdom supplied practically all the imports of 21's to 30's. In the range from 31's to 40's (which are largely 32's and 40's) imports from the United Kingdom rose slightly from 1,223,730 lbs. to 1,410,237 lbs. whereas those from Japan advanced from 375,722 lbs. to 6,232,200 lbs. Arrivals from other countries (mainly China) remained stationary at under 12,000,000 lbs. Counts above 40's were almost solely drawn from the United Kingdom spinners. Imports of United Kingdom two-folds fell from 1,124,278 to 835,896 lbs. and those from other countries from 2,145,307 to 1,716,230 lbs. Imports from Japan, however, rose from 438,950 lbs. to 2,852,520 lbs., the Japanese having regained the trade temporarily lost to the Chinese mills. Japanese imports of grey singles yarn dominated the market during the months between April and October, 1932, owing to the remarkably low prices quoted in consequence of the depreciation of the yen. For example, the price of 40's Japanese yarn—" 5 Stars mark "—which was 15 annas per lb. in April had fallen to 10 annas 3 pies per lb. in December, 1932! These prices include duty and merchant's profit. In two-fold spinnings, the Chinese mills were out of the market in the earlier part of the year, but re-entered it after October, when Japanese arrivals tended to fall off. In January, 1932, Japanese 2/42's " Lion " mark sold wholesale at Re.1. per lb. In December, 1932, the same mark was being sold for 11 annas 6 pies per lb.

The next table sets forth the details of the imports of bleached yarns :—

Counts	1931/32 lbs.	1932/33 lbs.
Nos. 1 to 20	6,346	3,898
,, 21 to 30	29,161	53,254
,, 31 to 40	1,022,819	913,625
Above 40's	609,356	788,335
Two-folds	1,971,864	2,294,921
Total imports (white)	3,639,546	4,054,033

The United Kingdom supplied the whole of the imported counts of 40's and below, the Japanese sending merely 16,800 lbs. of 31's to 40's. Similarly, in single bleached spinnings above 40's, Lancashire mills provided 767,765 lbs. as compared with 599,826 lbs. in the previous year. Imports of United Kingdom bleached two-folds rose slightly from 1,548,155 lbs. to 1,673,398 lbs. whereas arrivals from Japan increased from 413,500 to 619,510 lbs.

Coloured yarns were imported as follows:—

Counts	1931/32 lbs.	1932/33 lbs.
Nos. 1 to 20	185,012	204,763
,, 21 to 30	247,580	295,795
,, 31 to 40	506,812	604,462
Above 40's	230,996	227,083
Twofolds	232,227	336,149
Total imports (coloured)	1,402,627	1,668,252

The United Kingdom supplied all the coloured yarns below 31's. In the range of 31's to 40's, 66,290 lbs. were drawn from Switzerland, Italy and Germany. Counts above 40's and twofolds were almost entirely obtained from the United Kingdom.

Imports of mercerised yarns are almost exclusively confined to twofolds, the total arrivals of which rose from 5,025,728 lbs. valued at Rs.75 lakhs to 7,730,329 lbs. valued at Rs.94 lakhs. The Japanese have, for many years, had a virtual monopoly of this trade, their shipments during the past year rising from 4,775,732 to 7,562,989 lbs. in contrast with the arrivals from the United Kingdom which fell from 248,996 to 166,746 lbs.

The sources of supply of yarns of all kinds were as follows:—

Principal Countries of Consignment	1931/32		1932/33	
	lbs.	Rs. (lakhs)	lbs.	Rs. (lakhs)
United Kingdom	11,912,546	1,22	13,357,065	1,32
Switzerland	51,201	1	65,900	1
Italy	142,489	1	5,444	—
China (including Hongkong)...	13,215,238	92	13,325,400	84
Japan	6,206,197	83	18,148,809	1,61
Other Countries	47,429	—	200,764	1
Total	31,575,100	2,99	45,103,382	3,79

Indian Yarn Production.—The imports of cotton yarns are negligible when compared with the large and rapidly growing production of the Indian mills.

	Imports in lbs. (1,000)	Indian Mills Production in lbs. (1,000)
Annual Average for the 5 years 1909/10 to 1913/14	41,794	646,757
1913/14 (pre-war year)	44,171	682,777
1929/30	43,882	833,560
1930/31	29,140	867,279
1931/32	31,575	966,407
1932/33	45,103	1,016,418

The next table compares by counts the quantities of imported cotton twist and yarn with the quantities produced in Indian mills :—

	1913-14 (pre-war year)		1929-30		1930-31		1931-32		1932-33	
	Imports	Production	Imports	Production.	Imports	Production	Imports	Production	Imports	Production
	lbs. (1,000)	lbs. (1,000)	lbs. (1,000)	lbs. (1,000)	lbs. (1,000)	lbs. (1,000)	lbs. (1,000)	lbs. (1,000)	lbs. (1,000)	lbs. (1,000)
Cotton twist and yarn—										
Nos. 1 to 20	1,254	492,693	1,047	493,382	454	513,739	308	562,141	901	599,452
Nos. 21 to 25	896	123,995	290	181,245	251	166,344	227	185,887	311	177,343
Nos. 26 to 30	3,686	42,999	395	90,579	227	93,345	523	108,068	757	120,169
Nos. 31 to 40	23,657	19,712	20,050	46,365	14,755	60,747	14,308	71,073	20,908	77,185
Above No. 40	7,859	2,699	9,013	15,279	4,273	27,311	5,252	34,002	6,429	36,594
Two-folds (doubles) ...	—	—	13,053	—	9,170	—	10,938	—	15,766	—
Unspecified descriptions and waste	6,819(a)	679	34	6,710	10	5,793	19	5,236	31	5,675
Total	44,171	682,777	43,882	833,560	29,140	867,279	31,575	966,407	45,103	1,016,418

(a) Includes white twist and yarn which commenced to be shown separately by counts from April, 1927.

It will be remarked that, while 88 per cent. of the total Indian mill producton is still in counts below 31's (mainly in 20's, 21's, 22's, 24's and 30's) the spinning of the finer counts has received a great impetus from the boycott and "Swadeshi" movements of the last three years. The output of counts from 31's to 40's advanced from just over 46 million lbs. in 1929-30 to over 77 million lbs. in 1932-33 (of this total, 40's accounted for 41½ million lbs. and 32's for 18½ million lbs.). The production of counts above 40's has also risen from 15¼ million lbs. in 1929/30 to 36½ million lbs. last year. The movement has been aided by the relatively low prices of Egyptian and American cottons and the reduction of the parity between them and Indian cotton. Imports of American cotton from the United States rose from 9,756 tons in 1930/31 to 28,624 tons in 1931/32 and 45,791 tons in the year under review. Both Bombay and Ahmedabad are now turning to finer counts and, in 1931/32, no less than 22 per cent. of the total production of the Ahmedabad mills was in counts above 30's and 9 per cent. in counts above 40's. The new mills in Ahmedabad are being equipped with the most modern high draught, tape-driven, ring frames purchased at the exceptionally low prices which have been ruling during the past few years. Other mills throughout India are being remodelled and modernised and there is no doubt that the production of 40's and above will continue to increase, particularly if the industry receives further protection against its rivals in Lancashire and Japan.

The Bombay Millowners' Association in their Report for 1932 state that:—

> "the difficulties in the yarn market were similar to those in the cloth market with margins even lower. The prices of 10's and 20's yarns which were 6 and 7¾ annas at the beginning of the year rose to 7 and 9¼ annas by the middle of March, receded to 5½ and 7½ annas by the middle of June, remained steady till the end of July, rose with the August rise in cotton to 6¼ and 8¼ annas, but fell again by the end of October to 5¾ and 7¼ annas, at which figures they ruled till the end of the year. The stock position in the case of yarn was even worse than in cloth, stocks showing practically a steady rise from 13,000 bales at the beginning of the year to 30,000 at the end in spite of the fact that about 12 per cent. of the spindles remained inactive throughout the year."

Piecegoods.—The following table shows the *quantities* of the three main classes of piecegoods imported during the last pre-war year and during the past four years:—

Year	Grey (unbleached)	White (bleached)	Coloured, printed or dyed
	(All in million yards)		
1913-14	1,534.2	793.3	831.8
1929-30	925.5	473.6	483.5
1930-31	365.0	271.6	245.7
1931-32	249.4	279.7	223.2
1932-33	356.0	412.7	424.8

The next statement gives the *values* in the same years :—

Year	Grey (unbleached)	White (bleached)	Coloured, printed or dyed
	£	£	£
*1913-14	16,966,515	9,523,204	11,907,683
†1929-30	15,694,355	9,956,641	11,359,972
†1930-31	5,150,163	4,653,855	5,113,835
†1931-32	2,943,303	3,994,276	3,539,625
†1932-33	3,804,960	5,494,106	6,255,902

* At exchange of 1s. 4d. † At exchange of 1s. 6d.

It will be noted with satisfaction that there has been an increased import of all three main types of cloth from the low-water mark of 1931/32 of no less than 441½ million yards in quantity and £5,077,764 in value. This may be attributed to three main factors. Firstly, the subsidence of the political agitation and boycott campaign has not only permitted freer trading in imported goods, but by restoring open markets and improving confidence, has put renewed " heart " into those few sorely-tried dealers who have maintained their overseas connections. Secondly, the export of Rs.65½ crores worth of gold, a great part of which represented the savings of the population in the form of coin, ornaments or jewellery, has released a considerable amount of purchasing power and has enabled the cultivator to tide over the acute agricultural depression without reducing his consumption to the desperately low level which would otherwise have been inevitable. Lastly, and most important of all, was the depreciation of the yen exchange from a normal parity of Rs.137 to Rs.100 in August, 1932, and to Rs.83 at the end of that year. This enabled Japanese shippers to quote rupee prices which defied competition even from the Indian mills and which were sufficiently low to stimulate the purchases made possible by the increase in the general purchasing power brought about by the sales of gold. During the months of April, May, June, July and August, the market was flooded with Japanese goods, and although the volume tended to decrease in the autumn months as a result of the increase in the duties on non-British piecegoods to 50 per cent. from September 1st, Japanese piecegoods of cotton and artificial silk dominated the market throughout the entire year. The increased imports into Bombay from Japan in June, 1932, were more than 135 per cent. over and above the corresponding imports in June, 1931, whereas the increase from other countries during the same period was only 9 per cent.

The following table, which gives the declared value per yard, in rupees, annas and pies, of the three main classes of goods over a period of years, affords the clue to the revival in imports :—

Cotton Piecegoods	1913-14	1928-29	1929-30	1930-31	1931-32	1932-33
	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.
Grey (unbleached)	0 2 8	0 3 10	0 3 7	0 3 0	0 2 0	0 2 3
White (bleached) ...	0 2 11	0 4 5	0 4 6	0 3 8	0 3 1	0 2 11
Colour, printed or dyed	0 3 5	0 5 6	0 5 0	0 4 5	0 3 8	0 3 2

It will be observed that, for the first time during the past twenty years, the average prices of imported piecegoods fell below the rates ruling in 1913/14. I have, in these reports, consistently stressed the fact that as the ryot is only receiving prices far below the 1913/14 level for his staple crops and, moreover, 22½ per cent. of his income is spent on certain definite fixed charges such as rent, rates of all kinds and taxes, he has less than enough to meet fixed charges and less than nothing with which to purchase necessities. The realisation of his savings in gold at a good profit coupled with the lower prices at which cloth was made available resulted in the improvement last year. It should be noted, however, that the situation is entirely dependent upon the exports of gold and cannot be considered to be satisfactory until India's export balance in merchandise increases by at least Rs.50 crores as a result of world recovery.

The average declared rates given above do not convey a true impression of the phenomenally low rates quoted for Japanese goods. By the end of June, 1932, c.i.f. prices of Japanese cloth and yarn had been reduced by 25 to 30 per cent. and forward quotations showed a further heavy decline whereas the Indian Tariff Board reported in August that all the forward quotations they had seen for piecegoods of United Kingdom origin showed an increase ranging, according to the class of goods, from 1.39 per cent. to 37 per cent., and Continental quotations showed little change.

Varieties of Piecegoods imported.

Grey (unbleached)	1913-14 (pre-war year)	1929-30	1930-31	1931-32	1932-33
	(All in million yards)				
Dhooties, saris and scarves ...	806.1	501.1	171.0	83.6	138.8
Jaconets, madapollams, mulls, etc.	150.4	53.0	19.3	23.7	26.8
Longcloth and shirtings ...	545.4	340.1	166.3	133.8	182.8
Sheetings	.2	14.7	4.1	3.7	5.1
Drills and jeans	21.3	13.4	2.4	2.9	1.3
Other sorts	10.8	3 2	1.9	1.7	1.2
Total	1,534.2	925.5	365.0	249.4	356.0

The improvement is most noticeable in grey dhooties and grey shirtings. Bordered dhooties is still a predominantly Lancashire trade which has suffered more than any other by the boycott in Bengal and by the substitution of Ahmedabad and Bombay dhooties. The output of dhooties in Ahmedabad in 1932/33 was 353,096,463 yards and in all India 1,096,807,246 yards. The recovery in the import trade was largely confined to white-yarn dhooties and other specialities, and there has as yet been no recovery in the bulk trade in shirting dhooties. In 1932 Japan supplied 53.7 million yards. The heavy advance in shirtings represents Japanese trade and proves that Japan has been able to sell freely despite the increase in the import duty—in fact prices of certain standard Japanese qualities in December were actually lower than in the earlier part of the year when import duties were 1¾ annas per lb., or over 18 per cent. lower. Japan supplies practically the whole of the sheetings, drills and jeans and the figures tend to show that the higher duties have restricted her trade.

White (bleached)	1913-14 (pre-war year)	1929-30	1930-31	1931-32	1932-33
	(All in million yards)				
Dhooties, saris and scarves ...	104.3	45.5	15.4	1.9	3.6
Jaconets, madapollams, mulls, etc.	307.9	219.7	135.2	155.2	229.2
Longcloth and shirtings ...	115.3	104.1	71.9	79.8	109.7
Nainsooks	204.7	53.1	25.9	21.5	30.9
Drills and jeans	5.7	6.6	3.8	4.1	4.4
Checks, spots and stripes ...	16.1	12.0	3.7	3.8	7.9
Twills	8.3	16.8	7.7	3.7	11.4
Other sorts	31.0	15.8	8.0	9.7	15.6
Total	793.3	473.6	271.6	279.7	412.7

The figures reflect a material improvement in the markets for white shirtings and mulls in Karachi and Amritsar. The output of bleached goods from Indian mills is still very small and there is no possibility of substituting "Swadeshi" cloth. So far as white mulls are concerned, the increase has probably been secured in the main by Lancashire, although imports from Japan rose from 3.2 million yards in 1931 to 18½ million yards in 1932. In white shirtings imports from Japan rose from 35.2 million yards in 1931 to 55.7 million yards in 1932. Despite the heavy duties, prices of Japanese shirtings were considerably lower at the end of the year than at the beginning. Similarly in the case of nainsooks, which are mainly taken by Calcutta, imports from Japan advanced from half a million yards in 1929 to 4.9 million yards in 1930, 11.6 million yards in 1931 and 20.3 million yards in 1932. Wholesale prices at the end of the year were slightly higher than at the beginning.

Coloured, printed or dyed	1913-14 (pre-war year)	1929-30	1930-31	1931-32	1932-33
	(All in million yards)				
Dhooties, saris and scarves ...	115.2	33.0	19.1	8.7	18.2
Cambrics, etc.	113.6	43.5	20.5	19.7	40.6
Shirtings	152.6	105.6	54.7	62.9	115.6
Prints and chintz	209.7	61.3	33.7	23.0	50.5
Drills and jeans	30.0	86.6	33.3	32.9	71.4
Checks, spots and stripes ...	19.7	26.2	12.5	5.1	12.8
Twills	31.4	36.6	16.0	17.8	22.6
Other sorts	159.6	90.7	55.9	53.1	93.1
Total	831.8	483.5	245.7	223.2	424.8

Imports of coloured goods suffered severely from boycott activities, as they are of unmistakably foreign origin. They have also been reduced in recent years by the substitution of cheap Japanese artificial silk taffetas. It is encouraging, therefore, to note that they nearly doubled in the year under review, the advance being most marked in the case of dyed and printed shirtings, printed drills, prints and chintz, cambrics, and printed saris. Japan's interest is mainly in printed goods, notably shirtings, drills, flannelettes and prints and chintz, the imports from Japan of these four items being :—

	1931 (Million Yards).	1932 (Million Yards)
Printed shirtings	17.1	53.3
,, drills	14.3	40.7
,, flannelettes... ...	3.1	9.2
Prints and chintz	5.1	16.1

So far as dyed goods are concerned, the competition from Japan has not been so marked as in the case of bleached and printed goods, imports of the principal Japanese lines being as follows :—

	1931 (Million Yards)	1932 (Million Yards)
Dyed drills	4.6	8.4
,, flannelettes	2.4	8.0
,, shirtings	12.2	16.0
,, twills	1.0	4.9

Woven coloured goods have suffered from the substitution of printed cottons and artificial silk goods. On the whole, Japan would seem to have lost ground in this heading except in the case of woven coloured lungis and sarongs, of which her imports in 1929 were ¼ million yards; in 1930, 3.1 million yards; 1931, 6.1 million yards and, in 1932, 7.4 million yards.

Sources of Imports.

(1) *Grey Goods.*

Countries of Consignment	1931/32		1932/33	
	Yards	Rs. (lakhs)	Yards	Rs. (lakhs)
United Kingdom	59,679,324	96	111,073,646	1,76
China	3,953,960	6	683,430	1
Japan	185,215,899	2,89	243,949,344	3,29
United States	482,645	1	259,065	1
Other Countries	68,274	—	54,328	—
Total	249,400,102	3,92	356,019,813	5,07

The total may be sub-divided between :—

	1931/32		1932/33	
	Yards	Rs. (lakhs)	Yards	Rs. (lakhs)
Plain grey goods	165,999,746	2,70	217,542,762	3,08
Bordered grey goods	83,400,356	1,22	138,477,051	1,99

It is with modified satisfaction that one can record that imports from the United Kingdom have increased in greater proportion than those from Japan. The remarkable fall in Japanese prices is clearly shown by the fact that a quantitative increase of 58,733,445 yards only resulted in an increase in value of Rs.40 lakhs. Japan has almost completely ousted the product of the Chinese mills from the market as a result of the depreciated yen. Until the valuable trade in dhooties recovers as a result of improved purchasing power and consequent demand for the finer qualities, it is difficult to see how Lancashire can regain any material proportion of her trade in grey goods. In 1929/30, no less than 443 million yards of the 520 million yards of grey goods imported from the United Kingdom consisted of bordered dhooties. Since that year, however, the production of the Indian mills has advanced from 776 million yards to 1,096,807,246 yards.

(2) *Bleached Goods.*

Countries of Consignment	1931/32		1932/33	
	Yards	Rs. (lakhs)	Yards	Rs. (lakhs)
United Kingdom	207,045,989	4,02	281,005,955	5.27
Netherlands	3,549,081	11	2,230,920	6
Switzerland	5,924,399	17	6,491,386	25
Japan	59,820,081	93	120,354,174	1,62
Other Countries	3,342,404	9	2,661,689	12
Total	279,681,954	5,32	412,744,124	7,32

Prior to 1928/29 the United Kingdom held 95 per cent. of the trade in bleached goods. The production in Indian mills was negligible while the competition from Holland and Switzerland largely represented Lancashire grey cloth sent to those countries to receive special finishes in the case of Holland or to be embroidered in the case of Switzerland. In that year Japan contributed exactly 1 per cent. of India's imports. The deepening of the economic depression, which restricted the demand to the cheapest qualities, coupled with the boycott of British goods gave the Japanese industry an opportunity which it grasped with alacrity. In 1929/30 Japanese imports by yardage were 2.9 per cent., in 1930/31 they had risen to 10.3 per cent., they doubled in 1931/32 to 21.4 per cent. and, in the year under review, they attained 29 per cent. Their value in 1932/33 was 22.2 per cent. As I have already stated, Japanese success so far has mainly been in respect of shirtings, nainsooks and mulls. They met with some difficulty at first in producing mulls of marketable quality, bleach and finish, but their shipments of this type rose from 3.2 to 18.4 million yards in 1932 and arrivals were particularly heavy during the last six months of the year showing that the higher duty of 50 per cent. was completely ineffective. There is no doubt that they are making a definite bid for the enormous cheap mull trade in N.W. India, as their share of the value of the bleached goods imports into Karachi rose from 5 to 11 per cent. last year. Japanese competition in bleached goods is a permanent factor which Lancashire will have to face. The trade with the Continent must be seriously affected by the increase in duties, which—although aimed at Japan —must also apply to other non-British countries until the commercial treaty with Japan lapses in October, 1933. Other countries supplying small values in 1931/32 were Italy, Austria, the United States and France, but most of these were Dutch and Swiss goods in transit shipped from Italian and French ports.

(3) *Coloured, Printed or Dyed Goods.*—The heading is made up as follows :—

Description	1931/32		1932/33	
	Yards	Rs. (lakhs)	Yards	Rs. (lakhs)
Printed goods	104,912,165	2,08	236,943,105	3,97
Dyed goods	92,968,390	2,29	147,732,725	3,37
Woven coloured goods ...	25,362,713	68	40,120,105	1,00
Total imports	223,243,268	5,05	424,795,935	8,34

The provenance of the imports was as follows:—

Countries of Consignment	1931/32		1932/33	
	Yards	Rs. (lakhs)	Yards	Rs. (lakhs)
United Kingdom	110,270,875	2,85	194,326,118	4,88
Germany	521,306	4	587,113	5
Netherlands	3,074,350	10	2,544,398	8
Belgium	204,566	1	232,266	1
Switzerland	1,611,989	7	3,320,963	14
Italy	9,924,457	26	7,197,129	19
Straits Settlements	424,339	1	238,014	1
Japan	94,668,416	1,63	214,225,744	2,92
Other Countries	2,542,970	8	2,124,190	6
Total	223,243,268	5,05	424,795,935	8,34

The recovery in printed and dyed fabrics is encouraging and it is satisfactory that the United Kingdom has secured its due share, although the total United Kingdom shipments at under Rs.5 crores compare unfavourably with a total of Rs.12 crores in 1928/29 —the last normal year. I have already referred to the details of Japanese imports, which are still being maintained in ever-increasing volume in spite of the duties. Italian competition is keenest in dyed goods, notably dyed twills, Italian cloth and satteens and unspecified descriptions. Holland competes in printed lungis, woven lungis and sarongs and dyed shirtings. Switzerland supplies mainly dyed goods such as cambrics and muslins, which are also embroidered. Continental competition will show a marked decline next year on account of the prohibitive duties.

(4) *Fents of all descriptions.*

This valuable trade, which reached its zenith in 1927/28 with an import of Rs.94 lakhs worth, fell to Rs.16 lakhs in 1930/31, but has now improved to Rs.52 lakhs thanks to an increased demand from Bombay and Karachi, the two principal markets.

Countries of Consignment	1931/32		1932/33	
	Yards	Rs. (lakhs)	Yards	Rs. (lakhs)
United Kingdom	6,501,629	13	10,713,179	19
U.S.A.	16,366,164	23	19,404,640	30
Other Countries	420,777	1	1,600,971	3
Total	23,288,570	37	31,718,790	52

The trade has expanded in value considerably since the war but the yardage is still below the pre-war average of 37 million yards. Manchester shippers with their elaborate system of stitching and making-up supplied the market up to ten years ago, when New York merchants realised that good prices were obtainable in India for what they had hitherto regarded as a waste product. They have now for some years consistently sold their fents in India at prices much below United Kingdom quotations, but they have not adopted such an elaborate make-up and packing :—

Shares of the principal competitors in the total quantities of piecegoods imported.

Countries of Consignment	1913-14 Per cent.	1928-29 Per cent.	1929-30 Per cent.	1930-31 Per cent.	1931-32 Per cent.	1932-33 Per cent.
United Kingdom ...	97.1	75.2	65.0	58.8	49.4	48.7
Japan	0.3	18.4	29.3	36.1	43.8	47.3
United States ...	0.3	1.5	1.7	1.0	2.5	1.7
Netherlands ...	0.8	1.0	1.1	1.5	0.9	0.4
Other countries ...	1.5	3.9	2.9	2.6	3.4	1.9
Total ...	100.0	100.0	100.0	100.0	100.0	100.0

Indian Mill Competition.—The subjoined detailed statement gives the quantities (in pounds and their equivalent in yards) and descriptions of the woven goods produced in Indian mills during the past three years :—

Description		Twelve Months, April to March		
		1930–31	1931–32	1932–33
GREY & BLEACHED PIECE-GOODS—				
Chadars	lbs.	20,431,764	21,165,097	21,806,961
	yds.	53,952,571	55,726,035	58,627,103
Dhooties	lbs.	164,280,916	188,313,977	210,157,183
	yds.	831,405,029	964,540,251	1,096,807,246
Drills and jeans... ...	lbs.	21,037,263	26,241,466	28,281,001
	yds.	80,738,834	103,233,003	112,947,058
Cambrics and lawns ...	lbs.	4,069,786	5,806,486	9,038,773
	yds.	28,856,989	43,322,303	67,375,107
Printers	lbs.	3,818,419	4,462,874	2,496,990
	yds.	19,106,120	21,959,280	13,657,568
Shirtings & longcloth ...	lbs.	141,317,010	176,257,232	165,152,344
	yds.	642,222,883	790,914,032	748,049,705
T-cloth, domestics, and sheetings	lbs.	32,299,680	42,505,026	39,583,061
	yds.	121,900,368	154,407,630	143,691,596
Tent-cloth	lbs.	3,399,164	2,073,519	2,854,127
	yds.	8,738,057	4,897,969	6,668,530
Khadi, Dungri or Khaddar	lbs.	60,218,812	41,570,813	39,544,668
	yds.	175,212,963	119,520,969	115,499,449
Other sorts	lbs.	9,451,729	11,619,714	12,876,418
	yds.	41,356,426	52,582,993	59,673,692
TOTAL	lbs.	460,324,543	520,016,204	531,791,526
	yds.	2,003,490,240	2,311,104,465	2,422,997,054
COLOURED PIECEGOODS ...	lbs.	117,518,225	138,621,286	150,723,943
	yds.	557,642,795	678,786,696	746,901,445
GREY & COLOURED GOODS, OTHER THAN PIECEGOODS	lbs.	3,178,666	3,237,696	3,542,296
	dozs.	779,365	831,344	946,971
HOSIERY	lbs.	1,667,834	1,974,815	2,544,339
	dozs.	499,683	622,659	746,341
MISCELLANEOUS	lbs.	4,225,198	5,362,410	4,291,948
COTTON GOODS MIXED WITH SILK OR WOOL	lbs.	3,443,498	3,045,221	2,007,004
GRAND TOTAL	lbs.	590,357,964	672,257,632	694,901,056
	yds.	2,561,133,035	2,989,891,161	3,169,898,499
	dozs.	1,279,048	1,454,003	1,693,312

While there has been a slight reduction in the rate of increase, the total output of 3,169,898,499 yards is in striking contrast to the total imports of 1,225,278,662 yards. It is noteworthy that the only types of cloth which show important increases are dhooties, the production of which advanced by 132,267,000 yards to 1,096,807,246 yards and coloured goods, which rose from 678,786,696 yards to 746,901,445 yards. There was actually reduced production of grey shirtings; T-cloths, domestics and

sheetings; and Khaddar. Japanese competition has been particularly insistent in these types of cloth. It will be remarked that the increased production of the mills has been mainly in the standard types of plain goods, which they have produced for decades. There is very little evidence of diversification of production on any extensive scale. When stocks accumulate, as they have done at the close of the period under review, the fact that they are of only a few standard qualities tends to render their disposal more difficult and to depress market prices unduly. It is probable that when purchasing power revives, consumers will be disposed to return to the more varied choice of styles among imported fabrics provided these can be marketed at rates which they are able to afford to pay.

The Committee of the Bombay Millowners' Association in their report for 1932 review the year as follows:—

" The attempts to revive the Civil Disobedience Movement and the promulgation of Ordinances dislocated trade in the early months of the year. In Bombay, particularly, the picketing of foreign cloth shops by Congress volunteers and the arrests of the latter led to the practical closing of the Mulji Jetha Market for nearly two months. As most of the merchants with whom Bombay mills deal had their shops there, it became difficult for mills to transact any business. A portion of the market was eventually set apart specially for those traders who dealt in " Swadeshi " goods only, but it took some time before normal business relations were established. The difficulties of Indian mills due to the advantage which Japan continually obtained through the fall in exchange continued to the end of the year, and were even greater than those caused by political events. At the end of 1931, The Rupee/Yen exchange was 153; it declined continually and eventually reached the low level of 82, and thus at every stage of the fall in exchange, previous purchases of cotton proved to be profitable to Japan, and at the same time the cost of manufacture converted into rupees continually declined. Japan thus enjoyed the double benefit of cheap cotton and continually falling manufacturing costs as expressed in rupee currency. The Rupee/Yen exchange having depreciated to a little over Rs.100, the position became so serious that representations had to be made to the Government of India who referred the question to the Tariff Board which was already carrying out an inquiry into the Cotton textile industry. On the recommendations of the Tariff Board, Government enhanced the duty on cotton piecegoods not of British manufacture to 50 per cent. The surcharge of 11¼ per cent. that was levied for revenue purposes was discontinued when the additional duty was levied. When the Tariff Board considered the reference, the exchange was about 104, but by the time Government took action, the Yen had fallen to 88, and by the end of the year, to 82. The advantage that Japan, therefore, enjoys in the Indian market in spite of the enhanced duty may be easily judged.

At the beginning of the year, with Broach round Rs.200, standard shirtings were quoted at 10 annas a pound. With the rise in cotton prices, cloth prices also advanced, and by the end of March, prices had increased to 11½ annas.

With the decline in cotton, cloth prices also declined, but more rapidly than cotton, partly owing to accumulating stocks consequent on the closing of the markets and the riots in Bombay, and partly owing to the low prices of Japanese cloths. The revival of cotton prices from the middle of June was not reflected in local cloth prices which continued to fall, and some contracts are reported to have been entered into in the middle of July at the very low price of 9½ annas. The rise in cotton consequent on the first United States of America Bureau estimate gave a spurt to the Cloth Market, and by the time the second estimate was published fairly large contracts were

entered into at 11 annas a pound. Prices declined thereafter half an anna, and they remained steady for some time and confidence was being established when a group of mills effected sales in the first week of October at 10 annas a pound, followed three or four days later by another group cutting prices further a quarter anna.

Stocks of cloth which were 132,000 bales at the end of 1931 diminished to 120,000 bales by the end of February, after which there was a continuous rise till August when the stocks were over 168,000 bales. There was a seasonal decrease during September, October and November though the decrease was not as large as is usual, but by the end of December stocks again rose by 6,000 bales and stood at 154,000 bales."

Cloth Consumption of India.—The following table, compiled by the Director-General of Commercial Intelligence, gives a rough estimate of the quantity of mill-made cloth which was available for consumption in India during the year 1932/33 and during the past four years. The Director states that, owing to the existence of numerous markets and scattered demands, it is not possible in this table to take stocks into consideration.

	1913-14 (pre-war year)	1928-29	1929-30	1930-31	1931-32	1932-33
	Million yds.	Million yds.	Million yds.	Million yds.	Million yds.	Million yds.
Indian mill production	1,164.3	1,893.3	2,419.0	2,561.1	2,989.9	3,169.9
Imported goods ...	3,197.1	1,936.8	1.919.3	890.0	775.6	1,225.3
TOTAL PRODUCTION AND IMPORTS ...	4,361.4	3,830.1	4,338.3	3,451.1	3,765.5	4,395.2
Exported, Indian	89.2	149.2	133.4	97.7	104.6	66.4
,, Foreign	62.1	24.2	22.2	17.4	15.7	21.6
TOTAL EXPORTS ...	151.3	173.4	165.6	115.1	120.3	88.0
BALANCE AVAILABLE ...	4,210.1	3,656.7	4,182.7	3,336.0	3,645.2	4,307.2

It will be observed that whereas in 1913/14 imports provided three-quarters and the Indian Mills one-quarter of the machine-made cloth available for consumption in India, in 1931/32 the Indian mills produced 80 per cent. and imports provided only 20 per cent. of the available balance for consumption. Of this 20 per cent., the United Kingdom, as we have seen, supplied just under one-half, or approximately 10 per cent. of the cloth consumed in the country.

Conditions in the Large Import Markets.

Bombay.—I am indebted to a leading Authority who has been in close touch with the market throughout the year, for the following summary of conditions:—

" The year under review opened in a most disappointing manner due to entirely unexpected communal disturbances between Hindus and Mohammedans. These disturbances became so serious that throughout the months of May, June and July business practically ceased. During the month of July, foreign piecegoods dealers, owing to continual molestation by Congress pickets, vacated the Mulji Jetha Market in a body and established a new market at Kalbadevi Road within the Fort area. This extreme step has proved to be a correct one, as in spite of many handicaps, dealers were able to resume peaceful trading.

Early in August, the first American Bureau Report was published and being construed bullish, resulted in an advance in price of the raw material. Up to this time, the market since the resumption of trading after the communal troubles, remained very weak due to the anxiety of dealers to liquidate their large stocks. Following the Bureau report, however, the position became more encouraging but once again this improvement was only short-lived and towards the end of the month sellers again predominated.

Upon the 1st September, Government enhanced the import duty on all foreign cotton piecegoods, excluding imports from the United Kingdom, to 50 per cent *ad valorem* and this stimulated the market somewhat for a little time. Unfortunately, however, dealers had scarcely settled down to this new state of affairs when the second American Bureau Report published on the 8th brought about a heavy decline in cotton prices. Up country demand consequently fell away considerably.

October was conspicuous for extreme quietness, poor enquiry from consuming centres coinciding with many anxious sellers in the market. The important Hindoo Devali festival was a complete failure and reported to be the most gloomy ever witnessed, the usual brilliant illuminations being absent. After a long spell of quietness, November brought about a little activity particularly during the second half of the month. The Prints, Fancies and Dhooties Sections received the best attention, enquiry for Bleached Goods being counteracted by severe competition from Japanese sorts. Fresh forward business was attempted about this time but generally only small purchases were effected owing to the firmness of Home suppliers.

The closing month of 1932, however, witnessed an all-round improvement in demand, but from the commencement of 1933 until the close of the period under review, the position again altered for the worse and poor enquiry, weak sellers and declining prices prevailed.

Far East Competition.—This competition is probably the most discussed subject in the piecegoods trade of to-day. A study of the following figures, however, shows clearly that whatever the cause, the Indian markets are being flooded with goods from Japan to the detriment of imports from the United Kingdom.

Imports into Bombay. Japan vis-à-vis U.K.

	1932/33 more than 1931/32		1932/33 more than 1930/31	
	U.K.	Japan	U.K.	Japan
Plain Greys ...	19½%	29¾%	91%	22¾%
Whites	53%	237%	1¼%	459%
Prints	177%	317½%	34½%	693½%
Dyed	97%	86½%	52¼%	126%
Woven	232%	195%	38¼% (less)	124%
Cotton & Art Silk ...	129%	47%	95%	404%
All piecegoods ...	86¾%	98½%	34½%	181¾%

It will be seen that Japan's imports in 1932/33 compared with 1930/31 show an increase of 181¼ per cent. against an increase of 34½ per cent. in the case of the United Kingdom imports. Particular attention should be paid to the increased Japanese importations in 1932/33 as compared with 1930/31 in the case of Whites, Prints and Cotton and Art Silk Fancies Sections.

In Yarns also the same position prevails inasmuch as competition from Japan and China has practically precluded the United Kingdom from entering the market as a serious competitor.

All Yarns. Imports into Bombay.

1932/33 more than 1931/32		1932/33 more than 1930/31	
U.K.	Japan/China	U.K.	Japan/China
4¼%	67½%	¼%	127%

Continental and other Foreign Competition.—Imports from these sources show some falling-off due to the very adverse conditions with which the Continental shippers have had to contend, i.e., depreciated sterling and during the latter half of the period under review, a further increase in duties to 50 per cent. *ad valorem*. There is a slight increase, however, in the importations from Switzerland chiefly due to increased takings of Swiss embroideries. It should be noted that this particular business is largely conducted upon a consignment basis and during the latter quarter of the year sales have been very poor, leading to accumulating stocks.

To illustrate the position we give the following figures:—

All Piecegoods.	1932/33 compared with 1931/32	1932/33 compared with 1930/31.
Italy	5¾% less	7% less
Belgium ...	1¼% less	36% less
Germany ...	40% more	1¼% less
Holland	50% less	48½% less
Switzerland ...	14% more	73¼% more
U.S.A. (mainly fents)	60½% more	158½% more

It will be noticed that imports from Holland show a big fall; this is principally due to the severe competition from Japan in White Shirtings which has led to greatly curtailed imports of the well-known Dutch shirtings.

In woollen goods, the Continent has still a certain amount of business left but the operation of the Ottawa Tariff Agreement will very likely divert a considerable percentage of this business to the United Kingdom in due course.

Dealers.—It is very doubtful if dealers generally have made money upon their turnover in 1932/33. Nowadays, there are very few of the large old-established dealers still in the trade and it is becoming increasingly difficult to select sound parties with whom to trade in quantity. This is particularly the case in the Fancies section where there are many petty dealers working the cheap Japanese goods which can be turned over very quickly."

Calcutta.—A leading Authority in the piecegoods trade writes as follows:—

" As is known, Calcutta imported in 1932 considerably more goods than in 1931; but it is noteworthy that whilst the increase in European goods was only some 13,500 packages, that in Japanese goods was over 62,000 packages, and that in Indian Mills goods (by sea) was over 83,000 packages. So that Lancashire lost very considerable trade not only to

Japan (as was to be expected owing to both cheaper production costs and " dumping " methods of the latter) but also to the Indian Mills. It is also significant to note that although, admittedly, dealers cannot have made money on their Japanese goods (owing to declining prices and to very severe competition) still, they must continue to stock these goods, always well enquired for, if they wanted to " be in the trade " at all. The same applies to the Indian Mills goods though to a lesser degree and though these latter are as a rule handled by different classes of dealers.

More or less the same conditions have so far prevailed this year (1933); but with the increased import duties now in force, it is generally expected that importations of Japanese goods during the next few months are bound to be checked to some extent, and, of course, if duties on them are further increased there will be a further considerable curtailment in the future.

Generally, and barring rare exceptions, the period under review has not been profitable to buyers, even for Lancashire goods, and therefore a certain lack of confidence continues to prevail among the great bulk of dealers, even when the home markets are comparatively strong as they are just at present. For the last 18 months or so the prevailing feeling of hesitancy has variously been intensified, at times, by the uncertainty of both the economic and the political situation of the world. The future course of business at this port will, of course, also depend on what the bulk of the people of all the neighbouring districts will be able to make from the sales of their jute and other produce."

Karachi.—A prominent Karachi Importer writes as follows:—

" According to the Karachi Chamber of Commerce monthly Statistics the total imports of piecegoods into Karachi during 1932 were 168,339 packages against 109,759 packages in 1931 which shows an increase of about 58,500 packages compared with the importations in 1931.

It is noteworthy that of the 168,339 packages imported in 1932, 52,774 packages were Japanese goods representing 31.35 per cent. of the total importations. Accurate figures of Japanese importations in 1931, for the sake of comparison, are unavailable, but these are estimated to be about 23,000 packages representing 20 per cent. of the 1931 total importations.

It will be seen from the above that there has been a very considerable increase in the Japanese importations during the past year. It can safely be said that the bulk, if not all, of the increase in the imports of 1932 was not due to a genuine improvement in the demand from the consuming centres but to speculative buying and " own account " importations of Japanese goods which were, so to say, " dumped " on the market at prices defying competition.

As a result of this Japanese business our market is overstocked and with the recent decline in prices buyers are now losing heavily on their holdings.

The present position of our market is one of uncertainty and deliveries of Japanese goods are withheld in expectation of a further rise in the import duty of Japanese goods.

Owing to the heavy losses sustained by piecegoods dealers during the past six months or so, it is reported that the Karachi and Amritsar Piecegoods Merchants Associations have passed various resolutions aiming at restricting business during the next few months.

The course of our market in the immediate future is therefore obscure."

Madras.—An importing firm report as follows:—

" The year 1932 was not an eventful one so far as the piecegoods and yarn trade in Madras is concerned. The dealers having gained some money in their arrivals during the first part of the year they indented for a larger quantity to arrive in the latter part of the year on which they lost money owing to the failure of the anticipated seasonal demand such as "Deepavali"

due to the decline in the prices of foodstuffs and the other agricultural products which has crippled the buying power of the ultimate consumer. Consequently there was a lot of overtrading in the year under review. The total imports of Lancashire piecegoods and yarns for 1932 are 68,600 packages, a good part of which are still in the hands of importers, as against 47,715 packages imported in 1931. The business in Lancashire piecegoods is also very adversely affected by the heavy dumping of Japanese goods in the market. The dealers in this section are reported to have lost even more heavily than in the Lancashire. In spite of the increase in duty on Japanese goods in September, 1932, the dealers are able to place the Japanese goods very cheaply in the market with no profit to themselves and also to the detriment of the Lancashire and local mill goods trade. The imports of Japanese goods during 1932 into Madras amounted to 25,677 packages as against 16,324 packages imported in 1931. The increase is more marked in grey shirtings, printed goods, and artificial silk yarns. As regards the year 1933, the business so far has been very much restricted. The further fall in the prices of foodstuffs and the other agricultural products has intensified the poverty of the consumers who are unable to find money to pay the Government revenue and provide themselves with bare necessities of life.

Unless therefore something unforeseen happens in the meanwhile to improve the buying power of the consumer we do not anticipate a change in the situation and the trade will be of a hand to mouth character."

Delhi.—The situation is described by a correspondent as follows:—

" During the first half-year this market showed signs of improvement. Congress obstructions were reduced to a minimum by Government measures and the dealers were emboldened to deal more freely. Orders, however, were not on a large scale and the goods which arrived were taken up immediately.

Japanese goods remained in good demand until June when the prices of their goods dropped and this downward tendency is still continuing. Dealers generally are uneasy about their Japanese holdings as their losses have increased. Mohammadan dealers, who are large buyers of Japanese goods, recently petitioned the Local Government to impose heavy tariffs to restrict imports but so far without result.

Stocks held in the Banks' godowns are very low. Fair business was placed for shipments during the monsoon months (July/September) both with Manchester and the Continent. Bazaar estimates about 10,000 packages have so far been booked. American fent business was done on a fair scale.

The market was inactive until August when large shipments from Manchester and the Continent began to arrive. During September and October sales of woollen piecegoods were fair but about the second week of November the market became quiet and continues dull. Arrivals of winter goods during the past half year were on a fair scale and dealers were able to dispose of their stocks at a good profit.

The reasons for the depression towards the close of the year were not political, but economic and the condition of the ryot was unsatisfactory owing to the low price of cotton and grain crops.

Japanese goods remain very popular and have lowered the consumption of staple qualities from Manchester and the Indian Mills. White Shirtings especially have been affected by cheap shipments from Japan. The dealers in this market get most of their supplies of Japanese goods from Calcutta and Bombay and not direct.

It is estimated that the total foreign piecegoods imports from all sources into this market were about 10,000 packages during the past six months and dealers were able to dispose of most of their stocks. The absence of winter rains caused anxiety to cultivators at the end of the year.

The imports of fents from America during the latter half-year were on a moderate scale."

Amritsar.—A banking correspondent writes as follows:—

"Trade conditions in the Amritsar market during the financial year 1932/33 remained fairly satisfactory. The import of piecegoods during the period show a marked increase as compared with the preceding year. The market remained free from Congress interference which resulted in the dealers selling freely and a fair turnover thus materialised.

As compared with recent years a considerable amount of business was done in Lancashire and Continental goods. But for the flooding of the market by the Japanese at cut-throat prices this increase would have been more marked. Japan took a very large share of imports in this market and apart from silk piecegoods they have captured other lines of business, especially in the sundries market.

Stocks of piecegoods have accumulated and at present are heavier than normal. But with the harvesting of the crops it is expected that there will be a better demand for seasonal goods. Dealers at present are not booking further orders as they expect Government to take further action in connection with the dumping of piecegoods by the Japanese."

Cawnpore.—An exchange banker in Cawnpore writes:—

"There can be little doubt that of late years Cawnpore has been losing its importance as a distributing centre for foreign piecegoods in favour of Delhi and Amritsar. The latitude allowed to the Congress (which has many supporters in Cawnpore) during the boycott period has also helped to kill the trade, which continues principally in the hands of Hindus. A few Mohammedan traders took up this business about two years ago but have not made much progress.

During the last year, business in Cawnpore has been on a *very* restricted scale with low prices, and in absence of bulk sales, dealers cannot have made money. The outlook for foreign piecegoods is for the time being very uncertain, and we do not expect to see much fresh business for a long time to come. We consider that this class of business will be done on a much smaller scale than in the past.

The former average annual total of imports in foreign piecegoods to Cawnpore was estimated in round figures about Rs.2 crores, of which one crore imported directly by Local Importers, and the balance brought in from Calcutta, Bombay, Amritsar and Delhi. In the year under review the figures must have been a mere shadow, as compared with previous years. Japanese piecegoods competition is spoiling the market for any other make of piecegoods."

General Forecast.—(June, 1933). The future so largely depends upon unknown factors, such as the degree of protection to be afforded in future to the Indian Mills, and the measure of differentiation or of Imperial Preference to be accorded to the United Kingdom product (as to which see page 87), and the fiscal results of the forthcoming negotiations with the Japanese Government that it is practically impossible to make any close forecast at the present time.

It is, at the time of writing, three weeks since the import duties on non-British cotton piecegoods were raised, under section 3 (5) of the Indian Tariff Act, from 50 to 75 per cent. and the minimum specific duty on plain grey goods of non-British origin from $5\frac{1}{4}$ to $6\frac{3}{4}$ annas per pound. Although this measure barely offsets the further depreciation of the yen since the duties were last raised in

August, 1932, and the trade in Japanese goods is still active, there is a more hopeful tone pervading the markets for Lancashire goods. Enquiries are now forthcoming for Lancashire staple lines such as grey shirtings, jaconets and dhooties, which have been off the market for a number of years, but, so far, there have been few bulk purchases owing to the disparity in values between India and Manchester due to the firmness in cotton and cloth. All Indian markets are in a very healthy position so far as United Kingdom goods are concerned. Although stocks of Indian mill goods and Japanese varieties are very heavy, holdings of United Kingdom piecegoods are light. Dealers generally have made very meagre profits out of Japanese goods owing to indiscriminate price-cutting and the flooding of markets beyond consumption capacity with consequent disastrous effect on prices. They are therefore more inclined to revert to their old suppliers if they can secure competitive prices and can be safeguarded against further inundations of Japanese goods. There are unmistakable signs of a slight general improvement in the internal movement of commodities as evidenced by those infallible criteria—railway earnings and wagon loadings. The jute industry shows distinct improvement. Despite the heavy stocks, Indian cotton mills have reacted favourably to the raising of the import duties and a distinct improvement is noticeable in the demand for Ahmedabad goods. One may say that the stage is set for an immediate revival so soon as world confidence is restored and prices of primary products begin to rise. In these circumstances, it is not too much to expect a considerably increased volume of buying of Lancashire goods during ensuing months for November-February shipment.

On the other hand the uncertainty prevailing with regard to the future course of the import duties and the consequent speculation tend to retard progress and may prevent the full extent of any reaction in favour of Lancashire goods being realised. During the year 1932/33 the United Kingdom increased its share of the Indian piecegoods market by 210 million yards valued at over Rs.4 crores. I expect this movement to continue.

Raw Cotton.—The following statement, taken from the Indian Trade Journal, compares the estimates of the total outturn of cotton in India for the last two years with the sum of exports and internal consumption. The figures are those compiled by the Indian Central Cotton Committee and refer in the case of mills in British provinces to Indian cotton alone. The estimate of mill consumption in Indian States refers to all cotton, but it has been ascertained from the Indian Central Cotton Committee that the amount of foreign cotton consumed in Indian States is negligible. Import figures have not, therefore, been taken into consideration for the purposes of the comparison set forth below. A conventional estimate has, as usual, been made for extra factory or local consumption. It should be borne in mind that estimates of " carry-

over " from one year to another have not been taken into account owing to complete information not being available regarding stocks.

	Year ending 31st August	
	1932	1931
	Thousand bales (400 lbs)	Thousand bales (400 lbs.)
Exports to United Kingdom ...	125	274
,, Continent (Europe excluding United Kingdom) ...	424	1,003
,, China...	243	626
,, Japan	757	1,753
,, Other Countries	33	73
Total	1,582	3,729
Home Consumption—		
Mills*	2,346	2,271
Extra-factory or local†	750	750
Total	3,096	3,021
Approximate crop	4,678	6,750
Estimated in forecast	4,025	5,226
Excess (+) or deficit (—) neglecting carry-over	+ 653	+1,524

* The figure of mill consumption is that compiled by the Indian Central Cotton Committee, Bombay, mainly on the basis of returns made under the Indian Cotton Cess Act.

† Conventional estimate.

The next statement shows the stocks of cotton held by Indian Mills on the 1st August, 1932, and on the 1st February, 1933, (in bales regardless of weight) and is published by the Bombay Millowners' Association :—

	Bombay City and Island		All-India	
	1-8-32	1-2-33	1-8-32	1-2-33
COTTON MILL STOCKS. (In actual bales regardless of weight).				
(a) American (Linters and waste not included).	62,909	22,035	101,416	35,397
(b) East India	119,618	88,163	692,079	591,078
(c) Egyptian	6,002	2,678	19,322	11,377
(d) Sundries	24,318	14,386	59,211	35,024
Total	212,847	127,262	872,028	672,876

Figures from the Cotton Census taken at the request of the International Federation of Master Cotton Spinners' and Manufacturers' Association. (Figures are approximations).

The subjoined table gives the imports of raw cotton into India during the past two years:—

Countries of Consignment	1931/32		1932/33	
	Tons	Rs. (lakhs)	Tons	Rs. (lakhs)
United Kingdom	516	4	609	5
Persia	465	2	883	4
Egypt	14,856	1,31	9,135	78
Kenya Colony	32,185	3,17	20,694	1,78
Tanganyika Territory ...	569	5	943	8
Sudan	1,676	17	6,447	66
U.S.A.	28,624	2,23	45,791	3,84
Other Countries	432	4	256	2
Total	79,323	7,03	84,758	7,25

For most of the year under review, the margin between the price level of United States and Indian cotton was reduced to a very low figure with the result that the Indian mills increased their purchases in spite of the import duty of one-half anna per pound imposed as a revenue measure. The progress made by the Indian mills in spinning finer counts of yarn, in order to be able to weave the finer fabrics and so displace foreign imports of the higher grade cloths, accentuated the movement, which is likely to continue, unless, as a result of inflation in the United States, the price of the United States staple soars to a much higher level. The imports of raw cotton from the United Kingdom represent United States cotton shipped from Liverpool. The greater portion of the imports are now shipped direct from the Southern States. In the past, a considerable proportion of the imported Uganda and Kenya cotton was re-exported, but, with the increased demand for the finer types by the Indian Mills, these imports are being retained for domestic use. The total re-exports of raw cotton in 1932/33 amounted only to 118 tons valued at less than Rs.1 lakh.

Cotton Sewing Thread.—The imports were as follows:—

Countries of Origin	1931/32		1932/33	
	lbs.	Rs. (lakhs)	lbs.	Rs. (lakhs)
United Kingdom	1,626,791	47	1,793,707	49
Other Countries	243,949	6	279,226	7
Total imports	1,870,740	53	2,072,933	56

The recovery is satisfactory and the total weight imported approximates to the 1928/29 figure and is far in excess of the pre-war average of 1,598,000 lbs. The United Kingdom retains its position vis-à-vis the principal competitors—Holland and Austria. Sewing cotton, as such, is not manufactured in India but a certain amount of yarn, imported in the hank, is then re-wound on reels in Bombay and sold as sewing cotton.

Artificial Silk-*Yarns*.—A considerable recovery is to be recorded, the imports into Madras advancing by over 1,470,000 lbs. due to increased purchasing power of the handloom weavers of South India as a result of large realisations of gold savings. Arrivals at Bombay improved by 1,070,000 lbs. as a result of the decline of the boycott movement resulting in increased takings by Bombay and Ahmedabad mills. The further heavy fall in prices is shown by the fact that a total increase of 3,039,547 lbs. weight only represents an advance of Rs.10½ lakhs in value. The imports were:—

Countries of Consignment	1931/32		1932/33	
	lbs.	Rs. (lakhs)	lbs.	Rs. (lakhs)
United Kingdom	999,066	11	1,656,450	14
Germany	323,674	3	406,343	3
Netherlands	1,003,088	10	847,160	7
France...	727,424	7	360,129	3
Switzerland	291,430	3	67,816	1
Italy	3,899,354	41	5,608,756	48
Japan	436,045	4	1,798,903	14
Other Countries	282,465	3	256,536	2
Total	7,962,546	82	11,002,093	92

The entry of Japan into the market dates only from 1931/32 but it will be noted that her shipments already exceed those from the United Kingdom. A comparison of the quantities with the values gives an indication of the remarkably low prices.

Piecegoods Made Entirely of Artificial Silk.

Principal Countries of Consignment	1931/32		1932/33	
	Yards	Rs. (lakhs)	Yards	Rs. (lakhs)
United Kingdom	409,838	3	429,883	4
Germany	42,655	—	4,806	—
Italy	346,247	1	128,027	1
Japan	73,309,262	2,05	111,703,459	2,46
Other Countries	365,376	2	553,106	2
Total Imports	74,473,378	2,11	112,819,281	2,53

An import duty of 50 per cent. *ad valorem* was in force throughout the period, but, notwithstanding this handicap, imports from Japan increased by Rs.41 lakhs. The phenomenal rate of progression of Japanese shipments is shown by imports in 1930/31 of 22½ million yards, 1931/32 73⅓ million yards and 1932/33 111¾ million yards. The prices at which Japanese goods have been marketed were remarkably low, varying from 4 to 5 annas per yard, inclusive of 50 per cent. duty. At the beginning of 1929, when these goods first became popular, and when the duty was 15 per cent., the wholesale market price was over 8 annas per yard. Since March 1st, 1933, a specific minimum duty of four annas per square yard or 50 per cent. whichever is higher, has been introduced but, notwithstanding this, recent quotations show that the wholesale market selling price in Bombay, inclusive of duty, does not exceed 5¼ annas per yard.

Piecegoods of Cotton and Artificial Silk.

Principal Countries of Consignment	1931/32		1932/33	
	Yards	Rs. (lakhs)	Yards	Rs. (lakhs)
United Kingdom	1,236,354	7	3,147,986	14
Germany	183,314	5	318,781	8
Switzerland	1,974,636	7	987,119	4
Italy	4,865,722	15	4,377,159	21
Austria	270,681	1	626,216	3
Japan	1,259,647	3	2,797,854	6
Other Countries	375,529	2	182,637	1
Total Imports	10,165,883	40	12,437,752	57

During the period under review a duty of 34⅜ per cent. was imposed on silk or artificial silk mixtures, but from March 1st, 1933, a duty of 35 per cent. or 2¼ annas per square yard, whichever is higher,

has been imposed on (a) fabrics composed in part of some other textile than artificial silk and in which any portion either of the warp or of the weft but not of both is artificial silk and (b) fabrics not being artificial silk on which artificial silk is superimposed such as embroidered fabrics. The 35 per cent. *ad valorem* duty only is levied on (c) articles made from such fabrics and not otherwise specified. It is satisfactory to observe that imports from the United Kingdom were doubled both in quantity and value. Arrivals from Italy increased by roundly 50 per cent. in value though there was a falling off in quantity and those from Japan more than doubled in quantity but only increased in value from Rs.3½ to Rs.6¼ lakhs. Bombay is the principal market followed by Calcutta, Karachi, Rangoon and Madras in the order named.

Flax Manufactures.—The main types imported were as follows:—

Description	1931/32 Rs. (lakhs)	1932/33 Rs. (lakhs)
Twist and Yarn	*	†
Canvas	8	8
Piecegoods	3	3
Sewing Thread	2	2
Other sorts, including bags and sacks	5	4
Total Imports	18	17

* Rs. 28,412. † Rs. 11,552.

Details of the provenance of the imports are not yet available. In 1931/32 the United Kingdom supplied 94 per cent. of the whole trade, the balance including Rs.19,000 worth of flax piecegoods from France, Rs.4,541 worth of sewing thread from Austria and Rs.2,701 worth from Italy and approximately Rs. 12,000 worth of miscellaneous flax manufactures each from Germany, Austria and Japan.

Jute Manufactures.—The imports of the higher-grade jute manufactures which are included under this heading, after showing a steady decline for some years, rallied during the year under review. The figures are as follows:—

Countries of Consignment	1931/32 Rs. (lakhs)	1932/33 Rs. (lakhs)
United Kingdom	2	2
Ceylon	10	9
Other Countries	1	2½
Total Imports	13	13½

In 1931/32 the United Kingdom supplied the whole of the Rs.5,000 worth of twist and yarn and almost the whole of the Rs.50,000 worth of imported jute canvas. Ceylon, as usual, supplied Rs.9¾

lakhs worth of secondhand gunny bags re-exported from Australia and transhipped at Colombo. Of the Rs.1½ lakhs worth of miscellaneous jute fabrics, the United Kingdom supplied Rs.¾ lakhs and the Straits Settlements Rs.½ lakh.

Silk Manufactures. —It is significant, as showing an improvement in purchasing power, that the total imports of semi-luxury articles such as raw silk and silk manufactures should show an advance from Rs.273½ lakhs in 1931/32 to Rs.433 lakhs in 1932/33, notwithstanding a 50 per cent. import duty on the manufactured article. This result is due to a remarkable increase in the imports of silk piecegoods from Japan from Rs.72 to Rs.133 lakhs. The imports of the various types were as follows :—

Description	1931/32 Rs. (lakhs)	1932/33 Rs. (lakhs)
Raw Silk	62	1,17
Silk yarns, noils and warps	51	88
Goods of silk mixed with other materials	30	43
Silk piecegoods	1,26	1,81
Sewing Thread	1	1
Total Imports	2,70	4,30

China supplied virtually the whole of the raw silk. Of the yarns, noils and warps, Japan sent 44 per cent., Italy 26 per cent. China 12 per cent. and the United Kingdom 7 per cent. Silk mixtures were drawn from Japan (63 per cent), Germany (8 per cent) and the United Kingdom (6 per cent). The greatly increased trade in silk piecegoods was secured by Japan (73 per cent.) and China (24 per cent.), the United Kingdom merely contributing Rs.85,000 worth. The United Kingdom formerly supplied the whole of the imports of sewing silks but Japanese competition is growing and in 1931/32 accounted for 33⅓ per cent. of the trade.

Woollen Manufactures.—The various types imported were as follows :—

Description	1931/32 Rs. (lakhs)	1932/33 Rs. (lakhs)
Worsted yarn for weaving	9	15
Knitting wool	14	18
Blankets and rugs (other than floor rugs)	15	34
Braids	*	†
Carpets and floor rugs	5	4
Hosiery	6	7
Piecegoods	69	1,61
Shawls	6	11
Total Imports	1,31	2,54

* Rs. 22,985. † Rs. 43,390.

In 1931/32, of the worsted yarn imported, the United Kingdom supplied only 21 per cent. as compared with 50 per cent. in 1929/30, the principal competitors being Poland (43 per cent.), Germany (26 per cent.), and France (7 per cent.). Of the knitting wool, Germany shipped 46 per cent., the United Kingdom 24 per cent., France 16 per cent. and Poland 8 per cent. Bombay and Karachi were the principal markets. Blankets and rugs were contributed by Italy (85 per cent.), Germany (7 per cent.), and the United Kingdom (4 per cent.). Germany and the Netherlands each supplied one-third of the imports of braids.

Woollen Piecegoods.—After a continued decline during the previous three years, this valuable trade, which for many years averaged over Rs.3 crores in value, more than doubled last year owing to increased purchasing power in N.W. India, probably consequent upon the proceeds of gold shipments. The subjoined table gives the origin of the imports:—

Principal Countries of Consignment	1931/32		1932/33	
	Yards	Rs. (lakhs)	Yards	Rs. (lakhs)
United Kingdom	1,311,889	25	2,798,737	52
Germany	254,634	4	461,902	9
Netherlands	88,125	2	59,122	2
Belgium	78,934	1	504,251	6
France	2,036,216	16	4,561,869	34
Italy	1,385,838	15	3,606,617	42
Japan	121,390	1	1,412,661	8
Other Countries	238,528	4	541,602	8
Total Imports	5,515,554	68	13,946,761	1,61

The outstanding feature of the table is the remarkable advance in imports from Japan. Italy's share nearly trebled while the United Kingdom, France and Germany doubled both the volume and value of their shipments.

Woollen Shawls.—Here again there has been a most satisfactory recovery from the very greatly reduced imports in 1931/32. The following are the figures.

Countries of Consignment	1931/32		1932/33	
	Number	Rs. (lakhs)	Number	Rs. (lakhs)
United Kingdom	2,504	*	10,865	†
Germany	113,689	5	186,382	8
Other Countries	47,697	1	141,044	3
Total Imports	163,890	6	338,291	11

* Rs. 12,018. † Rs. 37,402.

" Other Countries " include Italy, France and Japan.

Carpets and Floor Rugs.—The steady decline from the peak limit of nearly Rs.51 lakhs in 1927/28 has continued and the present figures are the lowest to be recorded in recent years :—

Principal Countries of Consignment	1931/32	1932/33
	Rs. (lakhs)	Rs. (lakhs)
United Kingdom	2	2
Persia	2	1
Other Countries	1	1
Total Imports	5	4

The valuable trade in cheap Italian printed tapestry rugs has ceased altogether. Among " other countries " France was the principal supplier in 1931/32.

Machinery and Millwork.—The downward movement in the total imports of machinery from the highwater-mark of over Rs.18,36 lakhs in 1928/29 has largely been checked, the total figures of Rs.10,54 lakhs in 1932/33 showing a diminution of less than Rs.40 lakhs. This is a satisfactory showing as the factors of intense depression in most Indian industries, curtailment of all Government purchases on account of severe financial stringency and enforced reductions of extensions and renewals to Public Utility Undertakings, on grounds of economy, are still operative. Moreover, deliveries of outstanding plant to the few large hydro-electric, irrigation and port projects which are under construction, have been completed and progress on new capital undertakings is held up owing to the need for rigid conservation of India's financial resources. The widespread nature of the depression is shown in the heavily reduced imports of boilers, prime-movers, electrical machinery, mining and general industrial plant. On the other hand, the remarkable expansion in the Indian sugar industry which followed the imposition of a high protective tariff, has resulted in an advance of nearly £1,000,000 in the value of the imports of sugar machinery. Indian cotton mills, notably in Ahmedabad, continued to strengthen their competitive position by laying down new and highly-efficient plants for spinning, weaving, bleaching, dyeing and finishing. This resulted in an increased import of cotton textile machinery from Rs.192 to Rs.208 lakhs. The installation of certain patented machines in the tea factories doubled the imports of tea machinery.

The following table shows the origin of the imports during the past two years :—

[TABLE]

Countries of Consignment	1931/32 Rs. (lakhs)	1932/33 Rs. (lakhs)
United Kingdom	7,73	7,81
Germany	1,12	98
Belgium	27	39
Japan	4	4
U.S.A.	1,22	81
Other Countries	54	51
Total Imports	10.92	10,54

The next table shows the relative importance of the three principal suppliers before the war and during the past three years :—

Principal countries of Consignment	1913-14 Per cent.	1930-31 Per cent.	1931-32 Per cent.	1932-33 Per cent.
United Kingdom	90.0	74.3	70.2	74.1
U.S.A.	3.0	11.4	11.8	7.7
Germany	6.0	8.2	10.2	9.3
Other Countries	1.0	6.1	7.8	8.9
	100.0	100.0	100.0	100.0

The recovery by manufacturing engineers in the United Kingdom of 4 per cent. in their relative share of the trade is a tribute to the design and quality of their products and still more to that excellent service which is given, year in year out, by their branches and technical agents in the country. It is precisely in times of stress such as the present that the firm with an efficient organisation on the spot secures such reduced trade as may be offering. The results recorded above afford further proof of the value of local organisation and will, it is hoped, stimulate those few remaining firms of importance, who are not yet adequately represented in India, to take prompt steps to remedy this defect in their organisation. The advance, both actual and relative, in the United Kingdom share of the trade was effected in spite of a materially reduced import of certain United Kingdom specialities such as boilers, oil engines, railway locomotives, electrical machinery, machine tools, mining machinery and sewing machines. On the other hand, it should be noted that the depreciation of the sterling exchange severely handicapped United States suppliers and was largely responsible for the decline in the United States percentage. Germany, in spite of improved local organisation, failed to maintain her share largely on account of the reduced purchasing power of Indian importers of the cheaper types of industrial plant. " Other countries " included mainly Belgium, Italy, Switzerland and Sweden.

The following brief analysis of the principal types of machinery imported will be of interest:—

Cotton Textile Machinery.

	1930/31 Rs. (lakhs)	1931/32 Rs. (lakhs)	1932/33 Rs. (lakhs)
Cotton Spinning Machinery ...	1,13	1,10	1,18
,, Weaving Machinery ...	52	69	70
,, Bleaching & Dyeing Machinery	2	3	3
,, Printing Machinery ...	1	*	2
Other sorts	10	10	15
Total Imports	1,78	1,92	2,08

* Rs. 21,475.

The provenance of the above imports was as follows:—

Countries of Consignment	1930/31 Rs. (lakhs)	1931/32 Rs. (lakhs)	1932/33 Rs. (lakhs)
United Kingdom	1,63	1,67	1,84
Germany	7	13	12
U.S.A.	2	4	4
Other Countries	6	8	8
Total	1,78	1,92	2,08

The strengthening of the United Kingdom position is particularly gratifying in view of the strong anti-British political bias among Ahmedabad Millowners and to a lesser degree among certain of the Bombay Companies. As the major part of the imports were taken by Ahmedabad and Bombay mills, this proves that where our manufacturers are able to provide the most suitable types of machinery at competitive rates, they can overcome even such strong political prejudice as has been shown during the recent boycott movement, which has now largely subsided. Imports from Germany included waste spinning machinery, dobbies and other loom attachments and specialities in dyeing equipment. The United States provides patent winders, while " other countries " cover specialities from Italy, France, Spain, Switzerland and Japan.

Woollen Manufacturing Machinery.—Imports show a satisfactory advance due to renewals and extensions to the mills at Cawnpore, Bombay and in the Punjab. The figures of total imports were:—

1930/31	1931/32	1932/33
Rs.1,14,458	Rs.1,27,142	Rs.2,85,888

Details of origin are not yet available but in 1931/32 the United Kingdom supplied almost the whole of the trade. German machinists, however, compete on occasion.

Jute Manufacturing Machinery.—There has been a welcome revival in the imports of jute mill plant, but the imports are still only a fourth of the 1929/30 figures:—

1930/31	1931/32	1932/33
Rs.81 lakhs	Rs.32 lakhs	Rs.36 lakhs

In 1931/32 the United Kingdom supplied 97 per cent., Germany, the United States and Sweden contributing only trifling amounts.

Electrical Machinery.—The subjoined table gives the main types of electrical plant imported during the last two years:—

	1931/32 Rs. (lakhs)	1932/33 Rs. (lakhs).
Control and switchgear ...	35	27
Generators, alternators and dynamos	46	19
Motors	30	24
Transformers	11	19
Turbo-generating sets	4	5
Others	90	62
Total	2,16	1,56

As was foreshadowed in my last report, the completion of deliveries of heavy plant for the hydro-electric projects in the Punjab, Madras and elsewhere, combined with the effects of the financial stringency, which is precluding both the Central and Provincial Governments from embarking upon new capital undertakings, have resulted in a sharp reduction of the imports. The smaller power companies have also suffered from the effects of trade depression but recently seem to be showing more confidence in the future and a disposition to prepare for expansion when the trade revival sets in. There is such scope for the further extension of electrical power schemes throughout India and the application of power to agricultural and minor industries that the future may be regarded with confidence. A revival in the demand for plant is contingent upon the restoration of India's agricultural position and the revival of her industries.

The provenance of the imports was as follows:—

Countries of Consignment	1930/31 Rs. (lakhs)	1931/32 Rs. (lakhs)	1932/33 Rs. (lakhs)
United Kingdom	1,82	1,50	1,21
Germany	17	15	10
U.S.A.	29	36	16
Other Countries	11	15	9
Total	2,39	2,16	1,56

Thanks to their excellent local sales, technical and service organisation, the United Kingdom makers have managed to improve their share of the reduced trade and to increase their percentage from 69 to 77. In view of the keen competition for the reduced volume of work, the business has been largely unremunerative and there has been a natural tendency to scale down overhead charges by reducing staffs and facilities. I would sound a note of warning lest this process be carried too far. There are distinct signs that India has passed the nadir of the depression and it is to be hoped that, when the revival comes, the local organisations of United Kingdom firms will be able—with their unrivalled experience and connections —to take the fullest advantage of it.

Boilers.—The imports were as follows:—

Countries of Consignment	1930/31 Rs. (lakhs)	1931/32 Rs. (lakhs)	1932/33 Rs. (lakhs)
United Kingdom	85	47	41
Germany	10	7	1
Other Countries	2	2	3
Total	97	56	45

Here again, it is noteworthy that—in times of difficulty and depression—those firms which are most strongly represented and render the most efficient service are able to increase their proportion of the reduced turnover at the expense of their competitors. During the past year the United Kingdom percentage rose from 84 to 91, thereby confirming the wisdom of the leading United Kingdom manufacturers of water tube boilers in maintaining their efficient branch organisations. Shippers of Lancashire and Cornish boilers are also well represented both in Calcutta and Bombay. The provision of United Kingdom boilers to the recently constructed sugar factories has provided useful business during a depressed period. It is to be hoped that the year under review will prove to be the low water mark in this valuable trade, which, in times of industrial activity, has attained a total of £1,000,000 per annum.

Prime Movers (other than Electrical).—The total imports were classified thus :—

	1931/32 Rs. (lakhs)	1932/33 Rs. (lakhs)
LOCOMOTIVES—		
Oil engines	2	2
Do. (parts of)	1	—
Steam engines...	5	2
Do. (parts of) ...	4	5
Railway locomotive engines and tenders and parts	68	32
Others	—	1
OTHER THAN LOCOMOTIVES—		
Gas Engines	1	1
Do. (parts of) ...	2	1
Oil Engines	40	36
Do. (parts of)	11	12
Steam Engines	5	4
Do. (parts of) ...	6	4
Others	10	1
Total Imports of Prime-Movers ...	1,56	1,01

There is no more eloquent commentary on the severity of the financial and industrial depression than the reduction in the total imports of prime-movers from no less than Rs.4,12 lakhs in 1929/30 to Rs.100 lakhs in 1932/33. The fall has been greatest in the case of railway locomotives, the imports of which fell from Rs.1,97 lakhs in 1929/30 to Rs.1,30 lakhs in 1930/31, Rs.68 lakhs in 1931/32 and Rs.32 lakhs in the year under review. This has been mainly due to the curtailment of the railway capital programme resulting from financial stringency and partly to the more economical use of existing locomotive power. The contraction in industrial activities is evidenced by the fall in the imports of complete oil engines from Rs.104 lakhs in 1929/30 to Rs.68 lakhs in 1930/31, Rs.40 lakhs in 1931/32 and Rs.36 lakhs in the past year. The trade in oil engines has, in the past, been a useful criterion of industrial activity throughout India and particularly in the Punjab, Bombay and Madras. It is anticipated, however, that the provision of cheap electrical energy from the hydro-electric stations in the Punjab, United Provinces and Madras may bring about a rapid substitution of electric motors for oil engine units throughout wide areas.

Details of the provenance of prime-movers are not yet available, but it is estimated that the United Kingdom manufacturers supply fully 80 per cent. of the trade.

Agricultural Machinery.—The policy of retrenchment followed by all Provincial Governments has retarded the activities of Government agricultural departments in stocking and distributing improved implements. The following table reveals the position :—

	1930/31 Rs.	1931/32 Rs.	1932/33 Rs.
Agricultural tractors and parts ...	5,19,724	3,13,358	3,78,559
Ploughs and parts	1,23,013	83,561	54,159
Others	2,03,563	1,18,487	2,65,799
Total Imports	8,46,300	5,15,406	6,98,517

Details of origin are not yet available, but in 1931/32 the United States supplied 86 per cent. of the tractors, the United Kingdom contributing 7 per cent. Of the ploughs and parts, the United Kingdom supplied 89 per cent. and the United States 11 per cent. Of the miscellaneous types of agricultural machinery, the United Kingdom sent 59 per cent., Germany 24 per cent., and the United States 17 per cent.

Mining Machinery.—The intense depression in the coal, iron, manganese and non-ferrous mining industries is reflected in a further heavy fall in imports :—

Countries of Consignment	1931/32 Rs. (lakhs)	1932/33 Rs. (lakhs)
United Kingdom	39	26
Belgium	—	—
Germany	7	1
U.S.A.	19	11
Other Countries	—	—
Total Imports	65	38

United Kingdom manufacturers are strongly entrenched in the colliery industry, but meet with United States competition in oil-well equipment and plant for the non-ferrous mining industry in Burma and elsewhere. The boom in the gold mining industry, while benefiting existing mines such as the Kolar group, has not resulted in the opening up of fresh fields.

Metal Working Machinery (Including Machine Tools).—This heading mainly comprises machine tools of all types :—

Countries of Consignment	1930/31 Rs. (lakhs)	1931/32 Rs. (lakhs)	1932/33 Rs. (lakhs)
United Kingdom	22	14	10
Germany	2	3	3
United States	3	2	1
Other Countries	3	—	—
Total	30	19	14

The trade has steadily declined from the figures of 1927/28, which included the heavy purchases for railway workshop rehabilitation. The trade is adversely affected by curtailed railway purchases of heavy tools and by the reduced industrial demand. United Kingdom suppliers, who are strongly represented and secured 72 per cent. of the trade, during the past year, should be able to improve their position when demand broadens.

Oil Crushing and Refining Machinery.—The total trade was well-maintained for some years due to large imports by the oil companies in Burma, but these have now been curtailed. Imports of plant for crushing and refining vegetable oils have suffered severely from the depression.

Countries of Origin	1930/31 Rs. (lakhs)	1931/32 Rs. (lakhs)	1932/33 Rs. (lakhs)
United Kingdom	24	18	12
Germany	6	8	5
United States	9	7	1
Other Countries	1	2	1
Total	40	35	19

In normal times Calcutta is the principal market followed by Bombay and Rangoon. Since 1930, however, Rangoon imports have been on a large scale due to the requirements of the petroleum industry.

Paper Mill Machinery.—Indian paper mills are doing well under cover of protective duties but no fresh plants have been erected since 1927/28 and the trade is mainly in renewals. Imports are as follows :—

1930/31	1931/32	1932/33
Rs.7,32,040	Rs.6,32,297	Rs.5,31,237

In 1931/32, the last year for which detailed figures are available, the United Kingdom supplied 92 per cent., Germany and Sweden sending negligible quantities.

Refrigerating Machinery.—Following a considerable expansion between the years 1928/29 and 1930/31, when India adopted the use of the domestic refrigerator (almost entirely of United States origin), there has been a sharp decline in the trade as the following figures show :—

1930/31	1931/32	1932/33
Rs.22,24,267	Rs.9,89,466	Rs.8,85,439

In 1931/32 the United Kingdom contributed 10 per cent., mainly heavy plant for cold storage depots in Calcutta and Bombay. The United States, however, supplied 86 per cent. in the form of domestic refrigerators, which are of appropriate design for the needs of the country and have been energetically distributed. United Kingdom makers of domestic apparatus are late in the field and, although the depreciation of sterling has given them a great opportunity, they cannot be said to have made any appreciable headway. If the United Kingdom manufacturer persists in neglecting this field, he will find in the near future that the development of refrigeration in all its forms, including the artificial cooling of buildings, may have passed into the hands of United States manufacturers: United States firms are believed to be on the eve of launching a campaign to develop the use of air-conditioning apparatus throughout tropical and sub-tropical countries. There are few markets in the world which present greater potentialities than India does in this direction.

Rice and Flour Mill Machinery.—The prevailing depression in these industries is reflected in the statistics of total imports :—

Countries of Consignment	1930/31 Rs. (lakhs)	1931/32 Rs. (lakhs)	1932/33 (Rs. lakhs)
United Kingdom	14	5	4
Germany	4	3	3
U.S.A.	1	1	1
Other Countries	2	1	1
Total	21	10	9

While the United Kingdom retains its hold on the supply of plant for the flour-milling industry, German competition in the smaller types of rice mills, which are becoming increasingly popular in Burma and Bengal, is very keen.

Sawmill and Woodworking Machinery.—There has been no material development in the sawmilling industry in India for several years and imports have largely been confined to renewals for sawmills and woodworking machines for the railway carriage and wagon shops :—

Countries of Consignment	1930/31 Rs. (lakhs)	1931/32 Rs. (lakhs)	1932/33 Rs. (lakhs)
United Kingdom	4	2	2¼
Other Countries	3	1	½
Total	7	3	2¾

Such competition as is encountered is met with from the United States in saw-milling plant and from Germany in woodworking machines.

Sewing and Knitting Machines (Including Parts).—While the reduced purchasing power of the Indian consumer is responsible for the major portion of the decline in the total trade, the boycott propaganda, synchronising with greater activity on the part of German competitors, seriously affected the position of United Kingdom suppliers during the period of political agitation, which has now fortunately closed. The imports of complete machines were as follows :—

Countries of Origin	1930/31 Rs. (lakhs)	1931/32 Rs. (lakhs)	1932/33 Rs. (lakhs)
United Kingdom	40	35	29
Germany	12	10	10
Other Countries	1	1	2
Total	53	46	41

The numbers of the United Kingdom machines fell from 32,346 to 27,838; those from Germany from 12,566 to 10,681. " Other countries " included Japan, United States and France. The widespread organisation of the Singer Sewing Machine Co. with its depots, schools and hire-purchase arrangements, is second to none and, when Indian purchasing power recovers the United Kingdom share, assisted by the preferential duty of 10 per cent., should show a material advance. The following are the statistics of parts of sewing and knitting machines and accessories :—

1930/31 Rs. (lakhs)	1931/32 Rs. (lakhs)	1932/33 Rs. (lakhs)
5½	4½	4½

Sugar Machinery.—As a result of the high degree of protection afforded by the Sugar Industry (Protection) Act, 1932, there has been a most active movement in the erection of sugar factories, which first made itself felt early in 1932, but which has continued with increased vigour during the spring of 1933. The figures of the imports of machinery during 1932/33, which include practically all the plant imported for the November/April, 1932/33, crushing season, were as follows :—

Countries of Consignment	1930/31 (Rs. lakhs)	1931/32 Rs. (lakhs)	1932/33 Rs. (lakhs)
United Kingdom	11	26	91
Other Countries	3	4	62
Total Imports	14	30	1,53

Prior to 1932/33, it will be noted that United Kingdom suppliers largely controlled the market, but the prospects of large contracts attracted Dutch, German and Belgian manufacturers, some of whom had previously had little experience of Indian conditions. The following statement, compiled by the Indian Sugar Technologist, gives the number and particulars of new plants ordered for operation during 1932/33 and shows the intensity of foreign competition :—

Particulars	British	Belgian	German	Dutch	Others	Total
1. Number of plants ordered ...	14	6	4	2	1	27
2. Aggregate capacity (tons cane per day) ...	5,150	2,400	1,075	750	50	9,425
3. Aggregate value (in pounds sterling f.o.b.) ...	561,900	244,000	116,000	74,000	4,500	1,000,400
4. Percentage of total number of plants ...	51.8	22.2	14.8	7.4	3.8	100
5. Percentage of total capacity	54.6	25.6	11.4	7.9	0.5	100
6. Percentage of total value ...	56.2	24.4	11.6	7.4	0.4	100

These figures are exclusive of the machinery ordered for purposes of replacement and extension by existing factories.

The imports of machinery during the present year 1933/34 are likely to be on twice the scale. So far as can at present be ascertained contracts have been placed for 47 new factories, of which United Kingdom manufacturers have secured 27, Dutch 8, German 4, French 2, Belgian 1 and Czecho-Slovak 2. One factory is being erected from plant made locally with certain portions imported from the United Kingdom and two factories are being provided with secondhand machinery.

It is satisfactory to note that United Kingdom makers retain over 60 per cent. of the trade. Their reputation for design, quality and high output has been enhanced by the failure of the plants provided by one or two Continental firms. Although there is great congestion of factories in certain districts of Bihar and the United Provinces, it is likely that contracts for additional factories in other areas will be placed for the 1934/1935 season. There is, however, some risk that the industry may be overdone and manufacturers should exercise great caution in granting terms of deferred payment.

Tea Machinery.—Notwithstanding the severe depression in the Indian tea industry, the imports of tea machinery doubled in value largely as a result of the adoption by many factories of certain newly patented machines.

1930/31	1931/32	1932/33
Rs. 16,82,268	Rs. 10,69,126	Rs. 21,46,634

The imports are almost exclusively drawn from the United Kingdom. Manufacture of certain parts in India appears to be increasing.

Typewriters.—The imports, so far as United Kingdom machines are concerned, are still most disappointing :—

Countries of Origin	1931/32		1932/33	
	No.	Value (Rs.)	No.	Value (Rs.)
United Kingdom	244	31,842	241	34,737
United States	6,557	8,85,826	3,535	4,97,673
Other Countries	474	68,755	123	20,063
Total	7,275	9,86,423	3,899	5,52,473

It is to be hoped that, with a preferential duty of 10 per cent. in their favour, United Kingdom makers will improve their position. As I have repeatedly stated, the secret of United States success in this trade lies in their distributing, sales and service organisation.

Other Sorts of Machinery.—This comprehensive heading includes all types of machinery and plant not specially classified in the Customs Returns. The total values were :—

1930/31	1931/32	1932/33
Rupees	Rupees	Rupees
2,15,59,976	1,55,16,084	1,51,74,790

In 1931/32, the United Kingdom contributed 59 per cent. the United States 15 per cent. and Germany 14 per cent. Lesser values were imported from Belgium, Italy, Switzerland, Sweden and Japan.

Iron and Steel.—The subjoined statement giving the total imports of iron, steel and iron or steel into India during the past three years clearly reveals both the extent of the economic depression and also the degree to which, in times of reduced purchasing power, the local industry increases its share of the available trade :—

Total Imports	1930/31	1931/32	1932/33
	Tons	Tons	Tons
Iron	8,649	3,958	4,972
Steel	118,196	93,884	83,805
Iron or steel...	487,361	273,197	242,568
Total	614,206	371,039	331,345

The fall may be measured by comparison with a total import of 1,197,000 tons in 1927/28. The items principally affected during the past year have been beams, channels, girders, pillars and bridgework, which fell by 20,382 tons; galvanised sheets and plates, which—partly on account of the depressed state of the jute growing districts of Eastern Bengal and partly due to increased production in India—fell by 11,371 tons; rails, chairs and fishplates (2,859 tons); iron or steel sleepers and keys (2,232 tons); steel bars (3,366 tons); angle, tee and spring steel (6,724 tons), and tinned plates (570 tons). The main drop in steel imports occurred between 1928/29 and 1931/32. It is reasonable to assume that the figures for 1931/32 mark the lowest point and that any improvement in India's economic position will almost immediately be shown in increased imports of steel.

Production and Development of the Tata Iron and Steel Works. —I am indebted to the Tata Iron and Steel Company Limited for the following authoritative statement showing the production and the main items of development at Jamshedpur during the year ended 31st March, 1933 :—

Production of Pig Iron :

Number of Furnaces in existence on 31-3-1933... ...		5
Pig Iron Production	Tons	672,069
Pig Iron used in Works	,,	575,243
Ferro Manganese produced for Works' use		Nil

Furnaces and Converters :	No. in existence on 31-3-1933
Bessemer Converters (acid)	3
Open Hearth Furnaces (Basic)	10

Production of Ingots :

Open Hearth Basic	Tons	186,659
Duplex basic	,,	404,119

Rolling Mills :	No. in existence on 31-3-1933
Cogging Mills	2
Rail and Heavy Section Mills	2
Plate Mill	1
Light Section, Bar & Merchant Mills	4
Sheet Bar and Billet Mill	1
Sheet Mills (Stands)	12
35" Roughing Mill...	1

Production of Semi-Finished Steel :			
(a) Blooming Mills		Tons	514,762
(b) Sheet Bar & Billet Mill :—			
(1) Billets	Rolled from Blooms produced on the Blooming Mills shown above.	Tons	152,644
(2) Sheet Bars & Sleeper Bars		,,	108,111
(3) Tin Bars & Wide Flats		,,	56,741
Production of Finished Steel :			
Rails 50 lbs. and over (first class only)		Tons	37,671
Rails 30 lbs. and under		,,	462
Fishplates (first class only)		,,	2,394
Angles, Channels and Tees		,,	38,511
Beams		,,	60,455
Rounds, Squares, Flats, Octagons and Tie Bars ...		,,	81,622
Plates		,,	28,931
Sheets $\frac{1}{8}$" and under, other than Galvanised Sheets ...		,,	12,502
Galvanised Sheets		,,	46,866
Blooms and Billets for Sale		,,	23,864
Sleepers		,,	7,620
		Tons	340,898
Plus Tin Bars, Sleeper Bars, Sheet Bars, etc., for sale ...			86,070
Total		Tons	426,968

Extension to the old Sheet Mills was completed in February, 1933, and the Mill came into operation on 15th February, 1933. The capacity of the new unit is estimated to be 25,000 tons yearly.

" B " Blast Furnace was shut down for relining on 22nd January, 1933.

In addition to the extensions to the sheet mills referred to above, it is understood that, as the market develops, further extensions are planned which, it is expected, will increase the total production of galvanised sheets to over 100,000 tons.

Origin of the Imports of Iron and Steel.—The following statement shows the chief sources of supply of iron and steel with the percentage share of each country in the import trade :—

	United Kingdom		Germany		Belgium		France		United States		Other Countries		Total
	Tons (thousand)	Share Per cent.	Tons (thousand)	Share Per cent.	Tons (thousand)	Share Per cent.	Tons (thousand)	Share Per cent.	Tons (thousand)	Share Per cent.	Tons (thousand)	Share Per cent.	Tons (thousand)
1913–14 ...	609	59.8	200	19.6	173	17.0	2	0.1	22	2.2	12	1.3	1,018
1919–20 ...	269	63.0	1	0.2	13	3.1	—	—	135	31.6	9	2.1	427
1920–21 ...	498	70.0	15	2.1	69	9.7	2	0.3	113	15.9	15	2.0	712
1921–22 ...	280	45.7	60	9.8	160	26.1	9	1.5	84	13.7	20	3.2	613
1922–23 ...	359	48.1	90	12.1	229	30.7	7	1.0	38	5.1	23	3.0	746
1923–24 ...	429	56.7	61	8.0	217	28.7	5	0.5	18	2.4	26	3.7	756
1924–25 ...	439	50.5	88	10.1	273	31.4	16	1.8	17	2.0	36	4.2	869
1925–26 ...	489	55.3	69	7.8	229	25.9	45	5.1	23	2.6	29	3.3	884
1926–27 ...	406	48.1	79	9.3	257	30.4	33	3.9	29	3.4	41	4.9	845
1927–28 ...	685	57.2	79	6.6	316	26.4	48	4.0	16	1.4	53	4.4	1,197
1928–29 ...	650	55.5	70	6.0	333	28.5	54	4.6	18	1.5	45	3.9	1,170
1929–30 ...	486	49.9	58	6.0	312	32.1	35	3.6	16	1.6	66	6.8	973
1930–31 ...	269	43.8	44	7.2	207	33.7	29	4.7	15	2.4	50	8.2	614
1931–32 ...	164	44.2	26	7.0	118	31.8	16	4.3	5	1.4	42	11.3	371
1932–33 ...	140	43.0	22	6.7	104	31.9	12	3.7	2	0.6	46	14.1	326

The next statement shows the principal headings under which competition was encountered in 1932/33 :—

Description	From the United Kingdom	From Belgium	From Germany	From United States	Total Imports
	Tons	Tons	Tons	Tons	Tons
Steel bars (other than cast steel)	11,547	32,003	2,825	*	69,168
Beams, channels, girders, pillars and bridgework ...	5,833	5,852	1,138	*	15,739
Nuts and bolts	1,030	3,253	728	32	6,452
Hoops and strips	7,978	10,109	2,017	*	24,367
Nails, rivets and washers ...	3,004	2,564	625	*	10,512
Cast pipes and Fittings ...	1,257	46	*	*	2,096
Galvanised sheets & plates ...	49,667	21,103	*	6	72,658
Tinned plates	6,906	—	—	—	7,022
Plates not galvanised or tinned	19,043	2,676	3	—	22,085
Wrought tubes, pipes and fittings	9,753	836	4,385	1,923	23,461
Wire Nails	213	5,739	2,335	*	13,198
Wire Rope	1,649	—	—	5	2,049
Rails, chairs & fishplates ...	1,150	39	—	—	1,737
Sleepers and keys of steel or iron for railways	1,954	1,408	—	—	3,395
Fencing materials (including fencing wire)	589	1,321	1,464	—	4,524

* Not separately distinguished.

Belgian competition, in spite of the depreciation of the sterling exchange, continued to be acute, and was severely felt in bars, structural sections, hoops and strips, steel sleepers, wire nails, etc., where low price is the primary factor and where the British Standard Specification is not insisted upon. So far as galvanised sheets are concerned, the Belgian share declined in slightly greater proportion than that of the United Kingdom's. The imports of Belgian sheets at low prices have, however, had a consistently depressing effect on the market. Luxemburg shipped 17,057 tons of steel bars while Sweden and Norway supplied 1,283 and 1,529 tons respectively of nails, rivets and washers. The United States has been entirely out of the steel market during the year. French competition is met with in bars (4,841 tons), structural steelwork (2,675 tons) and wrought tubes (322 tons).

It is hoped that the provisions of the Ottawa Trade Agreement may give a valuable fillip to United Kingdom supplies of steel during the next few years. A preference of 10 per cent. was agreed to on all sorts of iron and steel subject to duty under Nos. 60, 61, 62 and 97 of Schedule II of the Indian Tariff Act. These include the unprotected classes of steel, among which may be mentioned valuable trades such as wrought pipes and tubes, hoops and strips, high speed and other Sheffield special steels.

The most important section of the Ottawa Agreement in so far as it relates to steel, is that concerning galvanised sheets. This is dealt with at some length in Chapter II but may be summarised by stating that the Government of India agreed to adjust the import duties on galvanised sheets on the basis of selling prices existing in 1932, as follows :—

Rs.30 per ton on sheet made in the United Kingdom from Indian sheet bar.

Rs.53 per ton on sheet made in the United Kingdom from other sheet bar.

Rs.83 per ton on sheet not made in the United Kingdom,

and laid-down that in the event of further reductions in the price of sheet imported into India and not made in the United Kingdom, the Government of India, as soon as they were satisfied that a fall in prices had in fact occurred, would, without an enquiry by the Tariff Board, take prompt and effective action to meet the situation by the imposition of an additional duty. It is still too soon to assess the value of this concession. The demand in India has been so restricted that there has been only a very small margin left for imports after the Tata Iron and Steel Company have sold their output. It is expected that the ultimate result of the agreement will be the elimination of foreign competition and the division of the Indian market between the United Kingdom and Indian producers.

Co-operation of this kind between the United Kingdom and Indian steel industries would seem to present the most satisfactory solution of the problems with which both industries are faced in this market. There is no doubt that the Indian industry will continue to expand and absorb a steadily increasing share of the business. In spite of this, however, the Indian market, in normal times, is sufficiently important to provide scope for the maximum output of the existing Indian works and still leave a heavy tonnage to be imported.

The following brief comments under each heading analyse the competitive position in 1932/33 as compared with the figures for the previous year :—

Bars (Other than Cast Steel).—A further heavy reduction is to be noted from 72,534 tons valued at Rs.65 lakhs to 69,168 tons valued at Rs.57 lakhs. The United Kingdom share rose in quantity from 10,998 tons (Rs.15¾ lakhs) to 11,547 tons (Rs.15 lakhs). Imports from Belgium dropped from 33,535 tons (Rs.25½ lakhs) to 32,033 tons (Rs.22½ lakhs), and those from Luxemburg from 20,842 tons (Rs.16 lakhs) to 17,057 tons (Rs.10¾ lakhs). Arrivals from Germany and France were on a very small scale.

Beams, Channels, Pillars, Girders and Bridgework.—In view of the prevailing depression and of the success of the Tata Iron and Steel Company in obtaining such structural sections as were

ordered, there has been a remarkable reduction in the total imports from 86,773 tons (Rs.105 lakhs) in 1930/31 to 36,121 tons (Rs.39¾ lakhs) in 1931/32 and 15,739 tons (Rs.15¼ lakhs) in 1932/33. Imports from the United Kingdom fell from 14,021 tons (Rs.22 lakhs) to 5,833 tons (Rs.8½ lakhs), those from Belgium from 9,483 tons (Rs.7½ lakhs) to 5,852 tons (Rs.4¼ lakhs), France from 5,938 tons (Rs. 4½ lakhs) to 2,675 tons (Rs.1¾ lakhs) and Germany from 5,973 tons (Rs.4½ lakhs) to 1,138 tons (Rs.¾ lakh).

Bolts and Nuts.—The total trade fell from 7,029 tons (Rs.19 lakhs) to 6,452 tons (Rs.18¼ lakhs). The United Kingdom share was reduced from 2,101 tons (Rs.7 lakhs) to 1,030 tons (Rs.4 lakhs), that of Belgium, however, rose from 2,864 tons (Rs.5½ lakhs) to 3,253 tons (Rs.6 lakhs). Arrivals from Germany fell in quantity from 861 tons to 728 tons but rose in value from Rs.2¾ lakhs to Rs.3¼ lakhs.

Fencing Materials (Including Fencing Wire).—There has been a satisfactory increase in the total trade from 3,486 tons (Rs.9½ lakhs) to 4,524 tons (Rs.14 lakhs). Arrivals from the United Kingdom rose from 545 tons (Rs.2 lakhs) to 589 tons (Rs.2 lakhs), Germany from 1,196 tons (Rs.3½ lakhs) to 1,464 tons (Rs.6 lakhs), and Belgium from 1,085 tons (Rs.2¼ lakhs) to 1,321 tons (Rs.3 lakhs).

Hoops and Strips.—The trade advanced slightly from 23,809 tons (Rs.28 lakhs) to 24,367 tons (Rs.28 lakhs). The United Kingdom share fell from 10,630 tons (Rs.13 lakhs) to 7,978 tons (Rs.10¼ lakhs). On the other hand that of Belgium advanced from 7,513 tons (Rs.8½ lakhs) to 10,109 tons (Rs.10½ lakhs) and Germany from 1,334 tons (Rs.1½ lakhs) to 2,017 tons (Rs.2½ lakhs). Arrivals from other countries fell slightly from 4,332 tons (Rs.4½ lakhs) to 4,263 tons (Rs.4½ lakhs).

Nails, Rivets and Washers (other than Wire Nails).—The total trade fell very slightly from 10,865 tons (Rs.31½ lakhs) to 10,512 tons (Rs.30¾ lakhs). Arrivals from the United Kingdom fell from 3,347 tons (Rs.8½ lakhs) to 3,004 tons (Rs.7¾ lakhs), those from Sweden from 1,937 tons (Rs.8½ lakhs) to 1,283 tons (Rs.6¼ lakhs) and from Germany from 789 tons (Rs.2 lakhs) to 625 tons (Rs.2½ lakhs). Arrivals from Norway rose from 1,083 tons (Rs.3¼ lakhs) to 1,529 tons (Rs.4½ lakhs). Imports from Belgium remained steady at 2,564 tons (Rs.5½ lakhs).

Cast Pipes and Fittings.—The total trade expanded from 1,666 tons (Rs.6¼ lakhs) to 2,096 tons (Rs.6 lakhs). The United Kingdom share fell from 1,554 tons (Rs.6 lakhs) to 1,257 tons (Rs.5 lakhs). Arrivals from " other countries," however, rose from 112 tons (Rs.36,000) to 839 tons (Rs.1 lakh).

Rails, Chairs and Fishplates (Including those for Railways).—As might be expected, this trade shows a further shrinkage from 4,596 tons (Rs.10 lakhs) to 1,737 tons (Rs.4½ lakhs). The United

Kingdom proportion fell from 3,025 tons (Rs.7¼ lakhs) to 1,150 tons (Rs.4 lakhs), that of Belgium from 976 tons (Rs.1¼ lakhs) to 39 tons (Rs.3,500) and " other countries " from 595 tons (Rs.1¼ lakhs) to 548 tons (Rs.½ lakh).

Screws.—The total imports receded slightly in quantity from 1,968 tons to 1,953 tons and in value from Rs.11 to Rs.10 lakhs. Arrivals from the United Kingdom fell from 424 tons (Rs.2½ lakhs) to 414 tons (Rs.2¼ lakhs) and from " other countries " from 1,544 tons (Rs.8½ lakhs) to 1,539 tons (Rs.7½ lakhs). Of the total screws imported in 1932/33, 1,793 tons represents wood screws and 160 tons metal thread screws.

Galvanised Sheets and Plates.—There has been a still further fall in this trade from 84,029 tons (Rs.166 lakhs) to 72,658 tons (Rs.123¼ lakhs), due to the intensity of the depression throughout India and particularly in the jute districts of Eastern Bengal, and to some extent to increased Indian competition. United Kingdom shipments fell from 54,939 tons (Rs.106½ lakhs) to 49,667 tons (Rs.87 lakhs), those of Belgium from 27,401 tons (Rs.56 lakhs) to 21,103 tons (Rs.33 lakhs) and " other countries " from 1,689 tons (Rs.3¼ lakhs) to 1,888 tons (Rs.3⅓ lakhs).

Tinned Plates.—The steady advance in Indian production, coupled with the depression in Indian industries, caused a further reduction in the total trade from 7,592 tons (Rs.20 lakhs) to 7,022 tons (Rs.19½ lakhs). Imports from the United Kingdom fell from 7,427 tons (Rs.19½ lakhs) to 6,906 tons (Rs.19¼ lakhs), arrivals from " other countries " being negligible.

Sheets and Plates (not Galvanised or Tinned).—This trade has been fairly well maintained, imports varying from 22,102 tons (Rs.28½ lakhs) to 22,085 tons (Rs.27 lakhs). The United Kingdom share actually advanced from 16,640 tons (Rs.23⅓ lakhs) to 19,043 tons (Rs.24½ lakhs) in contrast to arrivals from Belgium which fell from 4,658 tons (Rs.4¼ lakhs) to 2,676 tons (Rs.2½ lakhs).

Sleepers and Keys of Steel or Iron for Railways.—The total imports were reduced from 5,627 tons (Rs.8¼ lakhs) to 3,395 tons (Rs.4¼ lakhs). The United Kingdom share fell from 4,775 tons (Rs.7¼ lakhs to 1,954 tons (Rs.3 lakhs) while that of Belgium rose from 345 tons (Rs.½ lakh) to 1,408 tons (Rs.1¼ lakhs).

Wrought Tubes, Pipes and Fittings.—The total imports fell slightly in quantity from 23,786 tons to 23,461 tons but heavily in value from Rs.71¼ to Rs.61½ lakhs. The United Kingdom share shrank from 11,635 tons (Rs.36½ lakhs) to 9,753 tons (Rs.28 lakhs), that of Germany advanced from 3,305 tons (Rs.9½ lakhs) to 4,385 tons (Rs.10¾ lakhs) and Poland from 1,384 tons (Rs.3½ lakhs) to 3,611 tons (Rs.8¼ lakhs). On the other hand, imports from Holland were reduced from 1,713 tons (Rs.5 lakhs) to 1,330 tons (Rs.3 lakhs), Belgium from 1,150 tons (Rs.3⅓ lakhs) to 836 tons (Rs.2½ lakhs) and the United States from 3,191 tons (Rs.8½ lakhs) to 1,923 tons (Rs.4¾ lakhs).

Wire Nails.—The total imports rose from 9,456 tons (Rs.14¾ lakhs) to 13,198 tons (Rs.23¼ lakhs). Imports from Belgium fell from 6,202 tons to 5,739 tons but rose in value from Rs.9½ lakhs to Rs.11 lakhs. Imports from Germany rose from 2,325 tons (Rs.3½ lakhs) to 2,335 tons (Rs.4 lakhs) and " other countries " from 750 tons (Rs.1 lakh) to 4,911 tons (Rs.8 lakhs). It is noteworthy that imports from the United Kingdom remained practically negligible at 213 tons valued at Rs.½ lakh.

Wire Rope.—The total trade shrank from 2,673 tons (Rs.14 lakhs) to 2,049 tons (Rs.10½ lakhs). The United Kingdom share fell from 2,065 tons (Rs.12 lakhs) to 1,649 tons (Rs.9 lakhs) and that of " other countries " from 608 tons (Rs.2¼ lakhs) to 400 tons (Rs.1½ lakhs).

Aluminium.—The import trade in aluminium in all its forms has suffered severely from the reduced purchasing power of the past two years and is only one-sixth of the volume in 1929/30 :—

	1931/32		1932/33	
	Cwt.	Rs. (lakhs)	Cwt.	Rs. (lakhs)
Unwrought—				
Ingots, blocks, bars ...	141	—	164	—
Wrought—				
Circles	33,466	24	16,892	14
Sheets	1,239	1	1,544	1
Other Manufactures	4,585	5	5,953	7
Total Imports... ...	39,431	30	24,553	22

Particulars relating to the origin of the imports in 1932/33 are not yet available, but in 1931/32, of the circles, the United Kingdom supplied 26 per cent., France 24 per cent., Germany 16 per cent., the United States 13 per cent., Switzerland 12 per cent. and Canada 7 per cent. A noteworthy feature of that year was the reduction in imports from the United States from Rs.40 to Rs.3 lakhs. Circles form the raw material of the Indian aluminium hollowware industry, which has suffered severely from the economic depression, particularly in Bengal. Sheets were obtained in 1931/32 from Germany (Rs.30,000), the United Kingdom (Rs.24,000) and lesser values from the United States, France and Switzerland. The imports of " other manufactures," comprising mainly wire and utensils, were drawn from Germany (42 per cent.), the United Kingdom (17 per cent.), Switzerland (13 per cent.) and lesser values from Italy, Belgium, the United States and France.

Brass, Bronze and Similar Alloys.

Mixed or Yellow Metal for Sheathing.—There has been a most satisfactory recovery in this bazaar trade during the year under

review. As yellow metal sheets are the raw material of the common Indian household hollowware, it would seem that a certain amount of the proceeds of the realization of his gold ornaments, etc., has been expended by the ryot in household utensils.

Countries of Consignment	1931/32		1932/33	
	Cwt.	Rs. (lakhs)	Cwt.	Rs. (lakhs)
United Kingdom	71,834	26	150,091	47
Germany	179,491	63	236,799	72
Japan	39,867	15	95,697	30
Other Countries	7,219	2	290	—
Total	298,411	1,06	482,877	1,49

The partial recovery by United Kingdom rollers of their position in the market is satisfactory. From January 1st, 1933, they have enjoyed a preference of 10 per cent. on sheets and other wrought products which should enable them to regain their leading position, which has only been lost by the undercutting of prices by German suppliers.

Other Manufactures (Wrought).—The imports were :—

	1931/32 Rs. (lakhs)	1932/33 Rs (lakhs)
Rods ...	3	4
Sheets ...	2	2
Tubes ...	1	1
Wire ...	2	3
Other Sorts	12	20

Copper (Wrought).—The imports of wrought copper during the past two years have been as follows :—

	1931/32 Rs. (lakhs)	1932/33 Rs. (lakhs)
Sheets ...	60	96
Rods ...	12	8
Tubes	2	1
Wire (excluding telegraph & telephone wire)	2	3
Other Manufactures	5	5

The next table gives the provenance of the imports :—

[TABLE]

Countries of Consignment	1931/32		1932/33	
	Cwt.	Rs. (lakhs)	Cwt.	Rs. (lakhs)
United Kingdom	64,279	27	72,217	28
Germany	66,804	28	192,345	67
Belgium	4,089	2	10,699	4
France	31,285	13	3,201	1
U.S.A.	17,803	7	13,056	4
Other Countries	10,411	4	24,687	8
Total	194,671	81	316,205	1,12

The expansion in the trade is satisfactory but the failure of United Kingdom suppliers to quote competitive rates is disappointing. It is to be hoped that the 10 per cent. preference will bridge the gap between United Kingdom and German prices.

German Silver (including Nickel Silver).—The trade showed a slight recovery :—

	1930/31	1931/32	1932/33
Quantity (cwt.)	16,258	13,551	17,147
Value (Rs. lakhs)	13	10	13

The United Kingdom in 1931/32 only supplied 16 per cent., the bulk of the trade being shared by Italy, Austria and Germany.

Railway Plant and Rolling Stock.—It is not possible to treat this item so fully as formerly in view of the discontinuance of the issue of combined statistics since the 1st April, 1928. Rails and permanent-way material are now classified under iron and steel, locomotives appear under machinery (prime movers), while carriages and wagons are included under vehicles.

State-Operated Lines.—The figures available from the Monthly Trade Returns for Government Railway Stores are now extremely meagre. No provenance tables are given, while important items such as steel sleepers and permanent-way material, locomotives, etc., are not even separately classified. The only separately classified statistics appearing in the Monthly Returns are :—

	1931/32 Rs. (lakhs)	1932/33 Rs. (lakhs)
Carriages and parts for railways ...	12	3
Wagons and parts for railways ...	1	

In 1931/32 Rs.67 lakhs worth of locomotives and parts were imported on account of State Railways, Rs.37 lakhs being obtained from the United Kingdom and Rs.26 lakhs from Germany.

Company-Worked Lines.—The imports of railway material entering India as private merchandise on account of the Companies' lines were :—

Rails, Chairs and Fishplates.

Country of Origin	1931/32		1932/33	
	Tons	Rs. (lakhs)	Tons	Rs. (lakhs)
United Kingdom	3,025	7	1,150	4
Belgium	976	1	39	—
Other Countries	595	1	548	—
Total	4,596	9	1,737	4

Sleepers and Keys of Steel or Iron for Railways.

Country of Origin	1931/32		1932/33	
	Tons	Rs. (lakhs)	Tons	Rs. (lakhs)
United Kingdom	4,775	7	1,954	3
Belgium	345	½	1,408	1
Other Countries	507	½	33	—
Total	5,627	8	3,395	4

Railway Locomotive Engines and tenders and parts.

Country of Origin	1931/32	1932/33
	Rs. (lakhs)	Rs. (lakhs)
United Kingdom	41	26
Germany	15	3
U.S.A.	1	1
Other Countries	11	2
Total	68	32

Railway Carriages and parts.

Country of Origin	1931/32 Rs. (lakhs)	1932/33 Rs. (lakhs)
United Kingdom	36	18
Germany	2	—
Belgium	4	2
Other Countries	2	3
Total	44	23

Railway Wagons and parts.

Country of Origin ...	1931/32 Rs. (lakhs)	1932/33 Rs. (lakhs)
United Kingdom	15	11
Germany	5	1
Belgium	4	1
Other Countries	—	—
Total	24	13

The curtailment of capital expenditure and particularly of expenditure in sterling, which has now been the policy of the Government of India for some years, has seriously affected United Kingdom suppliers of rolling stock. Underframes of coaching stock and almost all the wagons required are now made in India and—apart from locomotives—the trade is now mainly confined to special orders and parts of rolling stock.

Motor Cars.—The progress of the trade over a period of years is clearly seen from the following table which gives the number of cars imported in each of the post-war years :—

	United Kingdom	United States (a)	Canada	France	Italy	Other Countries	Total
Year 1913–14 (pre-war)	1,669	868	—	111	7	225	2,880
War average (1914–15 to 1918–19) ...	537	1,681	—	49	28	22	2,317
Year 1919–20	448	9,353	20	3	17	84	9,925
,, 1920–21	2,541	10,120	1,938	192	218	423	15,432
,, 1921–22	790	802	576	158	222	347	2,895
,, 1922–23	449	1,386	1,846	61	131	450	4,323
,, 1923–24	1,005	2,865	3,290	153	370	301	7,984
,, 1924–25	1,682	3,106	3,956	215	235	186	9,380
,, 1925–26	2,399	4,143	4,775	367	860	213	12,757
,, 1926–27	2,546	4,030	4,476	607	1,416	122	13,197
,, 1927–28	3,600	6,031	3,400	538	1,367	186	15,122
,, 1928–29	3,645	10,145	4,366	277	967	167	19,567
,, 1929–30	3,758	9,620	2,318	364	1,150	189	17,399
,, 1930–31	2,885	5,098	3,250	261	917	190	12,601
,, 1931–32	2,178	3,368	676	161	510	327	7,220
,, 1932–33	3,958	1,201	296	84	226	436	6,201

(a) The country of origin of many of the cars imported from the United States of America during the years previous to 1920–21 is Canada.

The suspension of the gold standard on the 21st September, 1931, marks a definite turning point in the fortunes of the United Kingdom motor manufacturer in the Indian market. Prior to that date, although by dint of improved organisation he had managed slightly to improve his relative share of the trade, he had always had to face the competition of lower-priced cars from the United States and Canada. The depreciation of sterling, however, equalised the price position and the result is seen in the following statement :—

Country of Origin	1931/32		1932/33	
	No.	Rs.	No.	Rs.
United Kingdom ...	2,178	50,35,969	3,958	80,05,887
Germany	212	4,20,782	146	2,09,442
France	161	5,00,829	84	2,27,124
Italy	510	10,47,177	226	4,80,274
Canada	676	10,39,633	296	6,15,770
U.S.A.	3,368	65,28,963	1,201	28,51,862
Other Countries ...	115	2,38,547	290	4,69,259
Total ...	7,220	1,48,11,900	6,201	1,28,59,618

The increase in the United Kingdom share from 30 per cent to 63 per cent. of the numbers imported and from 32 per cent. to 62 per cent. of the values is almost entirely due to the variation of exchange and the position may once more change in favour of the United States if there is a substantial fall in the exchange value of the dollar. Meanwhile, the half-dozen or so leading United Kingdom makers are extending their local organisation. From the 1st January, 1933, United Kingdom makers have had the additional benefit of a preference of 7½ per cent. They should, therefore, be in a position to retain a considerable portion of the ground they have gained. Once the present depression lifts, the expansion of motor transport in India is likely to proceed at a greatly increased pace. Both the Central and Provincial Governments are now pledged to take up in earnest the improvement and extension of roads throughout the country. As I have repeatedly stated in the past, the market is one of the most promising ones in the Empire and will amply repay all the attention and care that can be given to it.

The following statement shows the number of motor vehicles registered in British India to March 31st, 1933 :—

Provinces	Motor cars including taxi-cabs	Motor cycles including scooters and auto-wheels	Heavy motor vehicles (lorries, buses, etc.)	Total
	No.	No.	No.	No.
Bengal (including Calcutta) ...	36,861	5,168	4,724	46,753
Bombay City*	8,559	496	932	9,987
Bombay Presidency (excluding Bombay City and Sind) *	10,208	775	46	11,029
Madras City	13,606	3,168	2,094	18,868
Madras Presidency (excluding Madras City)*	7,251	1,493	5,691	14,435
United Provinces†	12,117	2,041	4,831	18,989
Punjab	5,415	1,058	4,741	11,214
Burma*†	9,842	1,165	5,738	16,745
Bihar and Orissa	11,085	1,495	2,680	15,260
Central Provinces*	3,077	623	1,658	5,358
Sind	2,046	408	463	2,917
Delhi	6,811	1,241	1,657	9,709
North West Frontier Provinces	3,649	1,509	2,709	7,867
Ajmer-Merwara	742	195	202	1,139
Assam†	1,947	198	1,606	3,751
Total	133,216	21,033	39,772	194,021

* Actually running.

† Figures relate to the year ending 31st December, 1932.

Motor Omnibuses, Vans and Lorries.—The trade in omnibuses and commercial vehicles has suffered from the depression to an even greater extent than that of pleasure cars.

	1931/32 Number	1932/33 Number
Vehicles imported with bodies ...	1,617	192
Chassis	2,685	2,484

The next table gives the provenance of the imports :—

Countries of Consignment ...	1931/32		1932/33	
	No.	Rs. (lakhs)	No.	Rs. (lakhs)
United Kingdom	435	14	517	10
Canada	598	9	338	6
United States	3,236	42	1,793	25
Other Countries	33	1	28	—
Total Imports... ...	4,302	66	2,676	41

The fact that the increased numbers of United Kingdom vehicles is accompanied by a considerable fall in the total values tends to show that more of the lighter trucks have been sold. In spite of the exchange advantage, the United Kingdom truck has so far not been able to make much headway against the lighter United States vehicle of the Chevrolet or Dodge type. The general position in India remains, therefore, largely unchanged. As I stated in my last Report, apart from the large cities such as Calcutta and Bombay where the tramways and other transport companies operate fleets of heavy vehicles, which are mostly of United Kingdom manufacture, the services throughout the country are almost exclusively equipped with light vehicles of the United States type. The reason for this is that the Indian who promotes a transport organisation has usually only a limited amount of capital. He is therefore attracted by low-priced United States and Canadian vehicles, which he usually purchases on the hire-purchase system, runs to death and scraps after a couple of years or so, thus avoiding the necessity for any repair and maintenance organisation. So long as these conditions prevail and due weight is not given to the longer life of the United Kingdom vehicle, it is difficult to see how United Kingdom types can obtain an entry into this business. Wherever transport companies are operated on modern scientific lines and attention is given to maintenance and repairs, the United Kingdom truck has a better chance, but it must be admitted that—apart from the few large cities—the transport both of passengers and goods is likely to continue to be carried in light vehicles, which are suited to the needs of the country. Until the United Kingdom industry is able to produce a light truck comparable with say the Chevrolet at a competitive price, there is small chance of our being able to capture the up-country business in buses and trucks.

Motor Cycles.—The reduced purchasing power among European, Anglo-Indian and Indian buyers of motor cycles has resulted in a severe fall in the numbers imported from 1,501 machines in 1930/31 to 926 machines in 1931/32 and 782 machines in the year under review.

Countries of Consignment	1931/32		1932/33	
	No.	Rs.	No.	Rs.
United Kingdom	808	3,89,816	699	3,26,887
United States	8	5,603	1	1,620
Other Countries	110	25,477	82	23,012
Total	926	4,20,896	782	3,51,519

The disappearance of United States machines from the market is, of course, due to the exchange handicap. In 1931/32, the imports

from " other countries " included 66 machines from Germany, 7 from France, the remainder being machines re-exported from the Straits Settlements and Ceylon.

Cycles (other than Motor Cycles and Parts thereof) and Accessories.—It is most satisfactory to note that the total imports have risen substantially from the low level of 1931/32 and that the trade shows signs of recovery. The figures are:—

	1930/31	1931/32	1932/33
	No.	No.	No.
Cycles imported entire or in sections ...	53,472	49,672	69,528
Values of parts of cycles and accessories (excluding rubber tyres)	Rs. (lakhs) 51	Rs. (lakhs) 47	Rs. (lakhs) 60

The aggregate imports of cycles, parts and accessories were drawn as follows (in lakhs of rupees):—

Countries of Origin	1930/31	1931/32	1932/33
United Kingdom	48	43	52
Germany	11	8	8
Japan	11	12	19
Other Countries	2	2	1
Total	72	65	80

The most remarkable feature of the past few years has been the rapidly increasing trade in Japanese parts, imported at prices far below those of United Kingdom or German makers, and assembled locally by dealers in the bazaars. During the past year, since the depreciation of the yen gave Japanese exporters an additional advantage, not only parts but complete machines have been imported at rates with which it is practically impossible to compete. I would once again refer to the very prevalent practice, among certain Indian firms who assemble machines from imported Japanese parts, of attaching the transfer of a well-known United Kingdom make and selling the machine as a British product. It is to be hoped that the local representatives of United Kingdom firms will prosecute in every case where they can establish proof. It is hoped that the preferential duty of 10 per cent. will assist United Kingdom manufacturers to regain their former share of the trade.

Provisions.—In 1927/28 the total imports of provisions reached a total of Rs.641 lakhs. In 1932/33 the coresponding total was

Rs.293 lakhs. The fall is due to reduced purchasing power, affecting such semi-luxury articles as biscuits, condensed milk, milk foods and canned fish, and also to the virtual elimination of the imports of vegetable products (vegetable ghee, vegetable fats, or solidified vegetable oils as they are popularly known), resulting partly from the development of local manufacture and partly from the agitation, carried on largely by interested parties, against their use.

The subjoined table gives the source of the imports of provisions during the past two years :—

Countries of Consignment ...	1931/32 Rs. (lakhs)	1932/33 Rs. (lakhs)
United Kingdom	1,51	1,40
Netherlands	57	35
Straits Settlements (including Labuan)	24	20
China (including Hongkong) ...	10	8
U.S.A.	22	19
Australia	13	18
Other Countries	64	53
Total	3,41	2,93

Eliminating Rs.13½ lakhs worth of vegetable product (which is non-competitive) from Holland and also the imports of Oriental produce from the Straits Settlements and China, we find that the United Kingdom supplied 55 per cent. of the competitive trade as compared with 57 per cent. in 1931/32. The preferential duty of 10 per cent. should materially assist United Kingdom shippers of such items as canned and bottled fruits, fish, vegetables, etc.; cocoa and chocolate, confectionery and condensed and tinned milk.

The most important articles imported were the following :—

Principal Articles	1931/32 Rs. (lakhs)	1932/33 Rs. (lakhs)
Bacon and Hams	10	9
Biscuits and Cakes	30	28
Butter	5	5
Canned or bottled fruits	7	8
Tinned or canned fish	7	9
Vegetable products (vegetable ghee, vegetable fat, etc.)	42	13
Other canned and bottled provisions	55	52
Cheese (including canned)	6	8
Cocoa and chocolate	3	3
Confectionery	16	15
Farinaceous foods in bulk	30	26
Milk foods for infants and invalids...	23	19
Other farinaceous foods	19	18
Jams and jellies	4	4
Milk, condensed and preserved, including milk cream	57	49
Pickles, chutnies, sauces and condiments	4	

Liquors.—*Ale, Beer and Porter.*—The following table gives the imports, both quantities and values, during the past two years :—

Countries of Consignment	1931/32		1932/33	
	Gallons	Rs. (lakhs)	Gallons	Rs. (lakhs)
United Kingdom	2,473,274	49	2,446,565	50
Germany	554,593	15	507,657	14
Netherlands	341,584	6	282,211	6
Japan	259,594	4	415,965	4
Other Countries	95,717	2	65,352	2
Total	3,724,762	76	3,717,750	76

When the heavy import duties are taken into account, it is remarkable that the trade should have been maintained. In 1931/32, 1,352,059 gallons of beer were imported in bulk, mainly for the use of British troops, of which the United Kingdom supplied 1,322,389 gallons. Of the beer imported in bottle amounting to 2,245,296 gallons, the United Kingdom shipped 45 per cent., Germany 24 per cent., Holland 15 per cent. and Japan 11 per cent. The imports of stout and porter, amounting to 127,407 gallons, were almost entirely drawn from the United Kingdom.

As a result of the Ottawa Trade Agreement, United Kingdom shippers have the advantage of a preference of approximately 10 per cent. *ad valorem,* which is levied in the form of specific duties. This should enable them to increase their share vis-à-vis Germany, Holland and Japan.

Spirits.—The subjoined table shows the quantities and values of the principal kinds of spirit imported into India :—

Description	1931/32		1932/33	
	Gallons	Rs. (lakhs)	Gallons	Rs. (lakhs)
Brandy	153,085	19	113,921	17
Gin	80,926	7	86,078	7
Liqueurs	12,501	2	7,748	2
Rum	22,357	1	2,113	—
Whisky	315,414	53	331,416	55
Spirit present in drugs ...	102,923	31	102,479	33
,, perfumed	7,843	6	4,968	5
,, denatured	1,052,366	10	856,788	8
Other Sorts	22,035	7	18,800	7

The next statement gives the countries of consignment of all spirits :—

Countries of Consignment	1931/32		1932/33	
	Gallons	Rs. (lakhs)	Gallons	Rs. (lakhs)
United Kingdom	463,125	83	475,501	84
Germany	15,855	3	11,268	2
France	156,835	22	121,861	21
Java	1,068,632	10	856,861	8
United States	46,250	14	47,545	16
Other Countries	18,753	3	11,275	2
Total	1,769,450	1,35	1,524,311	1,33

When one takes into account the restrictive effect of the emergency import duties together with the reduced purchasing power of all classes of the community and, in particular, of the Europeans and Anglo-Indians, it is remarkable that the trade has weathered the depression so well.

Imports of brandy are almost entirely drawn from France with small quantities from the United Kingdom and Germany. In 1931/32 of a total importation of 315,414 gallons of whisky, the United Kingdom contributed no less than 314,320 gallons. German imports of cheap spirit for bazaar consumption had fallen to negligible quantities. Of 80,926 gallons of gin, the United Kingdom shipped 74,708 and Holland 5,742 gallons. Spirit present in drugs was obtained from the United Kingdom (45 per cent), the United States (43 per cent.) with lesser values from France and Germany. Perfumed spirit was drawn from the United Kingdom (39 per cent.), France (28 per cent.) and Germany (27 per cent.). Java, as usual, supplied practically the whole of the spirit which was denatured at Indian Custom Houses immediately on arrival and before clearance. With the development of the Indian sugar industry, this trade will probably decline to small proportions.

Wines.—The imports, never large, of wines varied very slightly from 164,674 gallons valued at Rs.15 lakhs in 1931/32 to 165,370 gallons valued at Rs.16 lakhs. Of the total imports in the former year, France supplied 35 per cent., Italy 8 per cent., Spain 5 per cent. and Portugal 4 per cent. The United Kingdom consigned 37 per cent. which, of course, represented re-exports from the four countries named.

Paper and Pasteboard.—The total imports record a substantial recovery from 2,190,698 cwt. valued at Rs.2,50 lakhs in 1931/32 to 2,639,549 cwt. valued at Rs.2,86 lakhs in the year under review. The following table shows the percentage shares of the principal countries in the total imports :—

	1913-14 (pre-war year)	1930-31	1931-32	1932-33
	Per cent.	Per cent.	Per cent.	Per cent.
United Kingdom	56.2	31.2	30.2	27.8
Norway	5.1	15.0	10.3	14.2
United States	.8	4.5	4.5	2.8
Sweden	3.2	10.4	11.3	14.5
Netherlands	2.5	7.0	6.4	4.9
Japan	1.0	3.9	3.9	5.6
Germany	17.3	9.7	11.0	10.5
Austria	8.3	10.3	14.3	10.1
Other Countries	5.6	8.0	8.1	9.6
Total	100	100	100	100

Packing Paper.—There has been a marked improvement in this trade, the total imports actually exceeding in weight those of the last normal year 1929/30. Arrivals from the United Kingdom, however, fell from Rs.4½ to Rs. 3½ lakhs worth. It is to be hoped that the recently imposed preferential duty of 10 per cent. may deflect some of the trade to United Kingdom mills although it must be admitted that Scandinavian manufacturers, who control large resources of cheap pulp near the mills, have a great advantage.

Countries of Consignment	1931/32		1932/33	
	Cwt.	Rs. (lakhs)	Cwt.	Rs. (lakhs)
United Kingdom	20,199	5	19,395	4
Sweden	90,640	13	173,327	23
Norway	8,247	1	26,340	3
Germany	33,412	4	31,068	5
Netherlands	9,879	1	10,464	1
Austria	16,122	3	20,933	3
Other Countries	26,322	4	43,370	6
Total	204,821	31	324,897	45

Printing Paper.—Of a total import of 679,493 cwt. under this important heading, 456,572 cwt. represented news printing paper and 222,921 cwt. included " other sorts." Here again a recovery during the year is to be recorded.

Countries of Consignment	1931/32		1932/33	
	Cwt.	Rs. (lakhs)	Cwt.	Rs. (lakhs)
United Kingdom	49,928	10	44,665	9
Sweden	55,505	7	62,474	7
Norway	130,629	15	230,019	24
Germany	74,305	10	60,911	9
Netherlands	40,725	7	35,980	5
Belgium	6,035	1	4,989	1
Austria	200,019	23	152,099	17
Japan	400	—	2,745	1
Other Countries	58,434	7	85,611	10
Total	615,980	80	679,493	83

Scandinavia and Austria supply most of the newsprint, while Germany and Holland compete keenly in miscellaneous printing papers. The imports were divided, according to their subjection to the protective duty, as follows :—

	1931/32	1932/33
	Rs. (lakhs)	Rs. (lakhs)
Protected	20	17
Not protected	60	66

Writing Paper and Envelopes.—The protective duty of 1½ annas per pound on writing paper is a very valuable stimulant to Indian mills during periods of low prices like the present. The steadily diminishing imports during the past three years show that they are obtaining an increasing share of the trade. In the past year the United Kingdom secured 37 per cent. of the values imported but it is expected that, as a result of the 10 per cent. preferential rate of duty on a number of items, this proportion should be higher in future years. The statistics were :—

Countries of Consignment	1931/32		1932/33	
	Cwt.	Rs. (lakhs)	Cwt.	Rs. (lakhs)
United Kingdom	42,069	18	33,343	15
Sweden	10,022	2	10,518	2
Norway	27,530	6	38,701	8
Germany	12,115	3	10,803	3
Netherlands	15,265	3	11,726	2
Japan	4,382	1	12,188	2
Other Countries	47,918	11	32,374	7
Total	159,301	44	149,653	39

Miscellaneous.

	1930/31 Rs. (lakhs)	1931/32 Rs. (lakhs)	1932/33 Rs. (lakhs)
Old newspapers in bags and bales	37	34	42
Other kinds of paper	27	25	28
Paper manufactures	12	10	11

The trade in old newspapers has not been greatly affected by the depression. In 1931/32, the United Kingdom supplied roundly 80 per cent. and the United States 20 per cent. Other kinds of paper are drawn from the United Kingdom (26 per cent.), Germany (16 per cent.), Sweden (15 per cent.), Norway (10 per cent.), Austria (9 per cent.) and the United States (5 per cent.). The United Kingdom provides 53 per cent. of the paper manufactures, the balance being derived from the United States, Germany, Sweden and Japan.

Chemicals and Chemical Preparations (excluding Chemical Manures and Medicines).—One of the most encouraging features of the past few years has been the steady advance in the imports of heavy chemicals in face of all obstacles such as enhanced import duties, political agitation and the " swadeshi " movement. This development reflects the progress which is being made in those Indian industries in which chemicals constitute a valuable raw material of manufacture. It also reflects the efficiency of the intensive sales and service campaigns of the rival United Kingdom and German groups. Although there was a slight setback in 1931/32, the total values for the past year have only once been exceeded (in 1929/30) and are three times as great as those of the average of the last five pre-war years. The total imports were :—

	Rs. (lakhs)
1927–28	2,64
1928-29	2,48
1929–30	2,79
1930–31	2,61
1931–32	2,57
1932–33	2,71

The following statement shows the position of the principal countries during the years 1930/31 and 1931/32, the last years for which details of provenance are available :—

Principal Countries of Consignment	1930/31 Rs. (lakhs)	1931/32 Rs. (lakhs)
United Kingdom ...	1,41	1,41
Germany	48	47
Italy	19	15
United States ...	13	12
Russia (Northern) ...	1	2
,, (Southern) ...	—	5
Finland	2	2
Japan	4	6
Netherlands	7	6
Belgium	3	3
Kenya Colony ...	6	4
Total Imports (all sources) ...	2,61	2,57

The next table gives the percentage share of the principal countries of consignment over a series of years covering both the pre-war and post-war periods:—

	1913-14 (pre-war year)	1914-19 (war average)	1930-31	1931-32	1932-33
	%	%	%	%	%
United Kingdom	74·7	70·4	54·0	54·8	51·6
Germany ...	12·4	·7	18·3	18·1	14·9
United States ...	·3	5·5	5·2	4·6	5·4
Italy	5·2	2·8	7·3	5·9	5·6
Kenya Colony ...	—	·3	2·3	1·5	1·6
Norway	·5	·5	1·6	·8	·3
Japan	1·5	16·7	1·7	2·3	4·9
Other countries ...	5·4	3·1	9·6	12·0	15·7
Total ...	100	100	100	100	100

The recovery in the United Kingdom position during the past couple of years is eminently satisfactory and partly results from increased imports of sodium carbonate (soda ash and soda crystals) and caustic soda, both of which are United Kingdom specialities. Imports from Russia of sodium carbonate amounted in 1931/32 to Rs.5½ lakhs. In the same year half a lakh's worth of Russian caustic soda was imported. Though these imports from Russia have not yet assumed large proportions, they have had a disturbing effect on the market. Japan is now manufacturing increased quantities of soda compounds and competition from this source is likely to increase. Imports from Germany cover almost the whole range of chemicals and competition from the German "I.G." group working through the Havero Trading Company is very keen. Italy supplies most of the imports of sulphur. The following table gives particulars of the total imports under each of the principal headings during the past two years:—

	1931/32 Rs. (lakhs)	1932/33 Rs. (lakhs)
Acids	8½	7¾
Bleaching Powder	9¾	9½
Carbide of Calcium	7½	7¼
Copper Sulphate	3	3
Disinfectants...	7	7
Glycerine	2½	3
Potassium Chlorate	8	11½
Sodium Bicarbonate	8	8
,, Carbonate	61¾	64¾
,, Cyanide	3½	3¼
Caustic Soda	31½	34
Sodium Silicate	2¼	2
Sulphur (Brimstone)...	16	19½

By the Heavy Chemical Industry (Protection) Act of 1931 protective duties at different rates were placed upon certain specified chemicals manufactured in India subject to the proviso that these protective duties (other than that on magnesium chloride) should have effect only up to the 31st March, 1933. After further investigation of the position, the Government of India stated, in a Resolution dated the 1st April, 1933, that :—

" the chemical industry in India can have no future so long as manufacture is carried on in small units with low production, and no indication has appeared of any desire on the part of existing manufacturing interests to concentrate production into a small number of economic units for the supply of the existing market. In these circumstances, the only result of continuing protection to the heavy chemical industry would be to perpetuate uneconomic manufacture and to place a burden on the consumer of such chemicals for an indefinite period with no prospect of any national advantage. The Government of India accordingly decided to place no proposals before the Legislature for the continuance of protection to the heavy chemical industry after the 31st March, 1933. The protective duty on magnesium chloride, which is in force until the 31st March, 1939, remains unaffected by this decision."

The discontinuance of these protective duties should give a valuable stimulus to the import trade and will remove a retarding feeling of uncertainty as regards indigenous production.

At the Ottawa Conference 1932, it was agreed that a preferential rate of 10 per cent. should be applied to the following chemicals of United Kingdom production—tartaric acid; other acids (except acetic, carbolic, citric, oxalic and tartaric); anhydrous ammonia; other ammonia and salts thereof; disinfectants other than naptha-line; bichromate of potassium; potassium compounds, other sorts (except chlorate and cyanide); bichromate of soda; cyanide of sodium; caustic soda; sodium carbonate (soda ash and soda crystals); other soda compounds (except bicarbonate, borax and sodium silicate); all other sorts of chemicals (except those indicated above as separately distinguished and except alum, arsenic, calcium carbide, glycerine, lead compounds, ferrous sulphate, magnesium compounds, sulphur and zinc compounds).

This valuable fiscal concession should materially increase the United Kingdom share of the trade and its effects will be watched with great interest.

Dyeing and Tanning Substances—Dyes obtained from Coal-Tar.—

The imports were as follows :—

Description	1931/32 Rs. (lakhs).	1932/33 Rs. (lakhs)
Alizarines—		
Dry...	*	†
Moist (not exceeding 16%)	1	2
,, (over 16% but not exceeding 20%) ...	12	11
,, (exceeding 20%)	5	4
Aniline	1,89	—
Congo Red	—	11
Coupling dyes of the naphthol group—		
Napthols, Rapid fast colours (rapid salts) and bases	—	30
Other sorts	—	11
Vat Dyes—		
Indigo	12	16
Other Sorts—		
Paste	—	8
Powder	—	40
Sulphur black	—	11
Metanil yellow	—	4
Auramine of concentration of 15% and less ...	—	1
Rhodamines (Carthamines) of concentration of 15% and less	—	‡
Aniline Salts	—	1
Others	15	67
Total of dyes obtained from coal tar	2,33	2,17

*Rs. 29,294. †Rs. 29,546. ‡Rs. 29,401.

The above revised classification, which was introduced from April, 1932, makes annual comparisons difficult during the first few years. The following table, however, indicates the principal sources of supply of the total imports of dyes obtained from coal-tar in the years 1930/31 and 1931/32 :—

Principal Countries of Consignment	1930/31 Rs. (lakhs)	1931/32 Rs. (lakhs)
United Kingdom	15	25
Germany	1,49	1,70
Switzerland	17	16
Italy	8	5
U.S.A.	14	11
Total Imports (all sources)	2,08	2,33

The United Kingdom is now firmly established as the second main supplier of dyestuffs to India. She is still overshadowed by the German " I.G." group but the progress made in recent years has been most encouraging and is likely to continue.

Soap.—The steady reduction in the imports of soap continues and is to be attributed, firstly, to increased production in India and secondly, to the reduction in purchasing power. The revenue import duty of 25 per cent. has had a strong protective effect and has brought about the establishment of scores of small soap factories all over India. Most of them produce soap which is not comparable with the imported article, but in times of restricted purchasing capacity and strong national sentiment, they are able to sell their brands against the imported product which is loaded in price with a 25 per cent. import duty. The only effective reply to uneconomic competition of this kind is the establishment of efficient modern factories within the Indian tariff wall, a development which is likely to grow in the future. The import statistics are :—

Description	1931/32		1932/33	
	Cwt.	Rs. (lakhs)	Cwt.	Rs. (lakhs)
Household & Laundry Soap...	265,655	56	244,730	49
Toilet Soap	31,776	28	43,812	31
Other Sorts	12,353	4	7,799	3
Total Imports... ...	309,784	88	296,341	83
Of which from—				
United Kingdom	264,763	75	248,063	70
Other Countries	45,021	13	48,278	13
Total	309,784	88	296,341	83

So far as household and laundry soap are concerned, United Kingdom makers are *hors concours* thanks to the excellence of their productions and to their efficient sales organisation. In 1931/32 the only competition experienced was from France (23,063 cwt. valued at Rs.3¾ lakhs) and Japan (1,193 cwt. valued at Rs.28,000). Imports from Japan, although still small, show a disconcerting tendency to grow and should be watched. In toilet soaps, however, the United Kingdom in 1931/32 supplied only 76 per cent., the United States 17 per cent. and lesser values from Germany, France and Austria. United States manufacturers rely upon wide advertising and standardised products and intensive selling by travellers and agents. The recent preferential duty of 10 per cent. should assist the United Kingdom in regaining a certain portion of this trade but it is noteworthy that the Indian

Legislature in order to protect the local industry imposed the 10 per cent. upon the existing 25 per cent. duty, which is still levied on the United Kingdom article and has a strangling effect on consumption..

Paints and Painters' Materials.

Paints and Colours.—There has been an encouraging increase in the total trade from Rs.66 to Rs.70 lakhs, which is still over Rs.40 lakhs below the post-war average figure. It must be borne in mind that there is an important and expanding paint industry in India, mainly controlled and managed by the leading United Kingdom manufacturers, which sets a limit on the future expansion of imports. The import position is as follows:—

Countries of Consignment	1931/32		1932/33	
	Cwt.	Rs. (lakhs)	Cwt.	Rs. (lakhs)
United Kingdom ...	163,886	43	160,652	43
Germany	69,577	8	40,077	9
Japan	24,923	4	56,977	7
U.S.A.	6,646	3	4,889	2
Other Countries ...	68,694	8	77,852	9
Total Imports ...	333,726	66	340,447	70

German competition, while extending over the whole range, is mainly in Paris blue and miscellaneous cheap colours for the bazaar trade. A formidable rival to the German trade is to be found in Japan, whose shipments of dry red lead, moist zinc white and miscellaneous colours are increasing rapidly. United States supplies are mainly of good quality colours for the use of Government Departments and industries. Imports of the most competitive types from the United Kingdom now enjoy a preferential tariff of 10 per cent.

Painters' Materials.—These comprise:—

Description	1931/32		1932/33	
	Cwt.	Rs. (lakhs)	Cwt.	Rs. (lakhs)
Genuine turpentine	2,599	1	1,788	1
Turpentine substitute ...	2,240	*	2,166	†
Varnish	28,375	14	29,526	14
Other kinds ...	Not recorded	6	Not recorded	7
Total ...	—	21	—	22

* Rs.38,047 † Rs.38,218

In 1931/32, the United Kingdom supplied two-thirds of the small quantity of genuine turpentine, Germany and Sweden sending the balance. The almost negligible quantities of turpentine substitute were drawn from the United Kingdom. The important varnish trade, however, was shared by the United Kingdom (80 per cent.), Germany (6 per cent.), the United States (4 per cent.), with lesser values from Holland and Belgium. The Indian branch works of one or two United Kingdom makers are now tendering for and securing a share of the orders for railway carriage shops, which is the most important demand.

Drugs and Medicines (excluding Chemicals and Narcotics).—The principal items enumerated under this comprehensive heading are :—

Description	1931/32 Rs. (lakhs)	1932/33 Rs. (lakhs)
Camphor	29	25
Asafoetida	2	1
Codliver Oil	—	1
Proprietary and Patent Medicines ...	46	38
Quinine Salts	26	26
Saccharine	2	2
Total imports of all kinds	1,91	1,86

The imports of camphor are shared by Germany and Japan. Asafoetida is derived exclusively from Persia. The small trade in cod liver oil is shared by the United Kingdom and Norway, Holland having temporarily dropped out of the market. It is when one comes to proprietary and patent medicines that the keenest competition is experienced, the United Kingdom in 1931/32 supplying 47 per cent., the United States 16 per cent., Germany 17 per cent., France 10 per cent., the Netherlands, Norway and Japan also supplying small percentages. Of the quinine salts, the United Kingdom supplied 33 per cent., Germany 42 per cent., Holland 8 per cent., Java 7 per cent. and the United States 2 per cent. Of the total trade in drugs in 1931/32, the United Kingdom contributed 34 per cent., Germany 22 per cent., the United States 10 per cent., Japan 9 per cent., with lesser proportions from France, Italy, Switzerland, Holland, Java and Persia. By the terms of the Ottawa Trade Agreement, the United Kingdom now enjoys a 10 per cent. preference on proprietary and patent medicines and certain other drugs, which should enable the United Kingdom share to be increased in the future. As I have repeatedly stated, however, United Kingdom manufacturers suffer most from the lack of a Pure Food and Drugs Act in India, as their competitors are able to sell drugs which do not equal the standard of the British Pharmacopoeia.

Apparel (excluding Hosiery, Boots and Shoes).—The following table shows the imports under each main heading :—

Article	1931/32 Rs. (lakhs)	1932/33 Rs. (lakhs)
Apparel (including drapery, uniforms and accoutrements)	40	40
Gold and Silver thread	7	10
Hats, caps, bonnets and hatters ware ...	18	17
Lametta	5	6
Secondhand clothing	11	8
Waterproofed clothing	1	2
Total imports of all kinds ...	82	83

In 1931/32, the United Kingdom supplied 41 per cent. of the apparel, the principal competitors being Japan (39 per cent.), Germany (5 per cent.) and lesser values from the United States, Italy and France. Imports from Japan are expanding, but are usually of a cheaper type than the United Kingdom product. Gold and silver thread was drawn from France (66 per cent.) and Germany (33 per cent.). Hats, caps, etc., were supplied by the United Kingdom (19 per cent.), Czecho-Slovakia (27 per cent.), Japan (26 per cent.) and Italy (16 per cent.). Lametta is a virtual monopoly of France and Germany. The United States has for some years been ousting the United Kingdom from the considerable trade in second-hand clothing, United States shipments in 1931/32 representing 80 per cent. and United Kingdom 19 per cent. Japan for the first time supplied 1 per cent. The small arrivals of waterproofed clothing are almost entirely drawn from the United Kingdom.

The provenance of the total imports was as follows :—

Countries of Consignment	1931/32 Rs. (lakhs)	1932/33 Rs. (lakhs)
United Kingdom	24	24
Germany	7	9
France	7	10
Italy	3	3
Japan	21	25
U.S.A.	10	7
Other Countries	9	6
Total	81	84

Hosiery.—*Cotton.*—The trade recovered half of the ground lost during the previous year :—

	1931/32 Rs. (lakhs)	1932/33 Rs. (lakhs)
Stockings and socks...	9	12
Underwear	38	53
Other sorts	1	2
Total	48	67
of which from—		
United Kingdom	*	†
Japan	42	61
U.S.A.	1	1
Other Countries	5	5
Total	48	67

* Rs.52,807 † Rs.61,111

From the point of view of the hosiery maker in the United Kingdom, the bulk of the trade may be regarded as being non-competitive. The average value of the underwear, for example, was just over Rs.2—say three shillings per dozen singlets—3d. each ! Even Germany, which held this trade before the war, cannot now compete with Japan. " Other countries," apart from Germany are Hongkong and China. It is remarkable that the United States should send over £7,500 worth of higher-grade hosiery for European wear into a market of British consumers.

Woollen.—Imports have fallen to one-third of their normal value :—

1930/31	1931/32	1932/33
Rs.9,72,448	Rs.6,69,114	Rs.6,92,501

In 1931/32 the United Kingdom supplied 83 per cent., Japan 8 per cent., Germany 3 per cent., with small values from France and Italy.

Haberdashery and Millinery.—Although there was a noticeable recovery during the year, the total import of Rs.68 lakhs is merely one-half the pre-war average figure of Rs.137 lakhs. The following headings are included in the classification :—

Article	1931/32 Rs. (lakhs)	1932/33 Rs. (lakhs)
Lace and Embroidery	16	21
Towels not in the piece	6	10
Other Sorts	32	37
Total	54	68

The provenance of the imports was as follows :—

Principal Countries of Consignment	1931/32 Rs. (lakhs)	1932/33 Rs. (lakhs)
United Kingdom	14	14
Germany	11	13
France	3	2
Switzerland	2	4
Italy	8	10
Japan	10	18
Other Countries	6	7
Total	54	68

In 1931/32 the United Kingdom supplied 14 per cent. of the lace and embroidery, Italy 36 per cent. (which must be mostly Swiss goods exported from Genoa or Venice), Germany 25 per cent., Austria 7 per cent. and Switzerland 7 per cent. Of the towels not in the piece, 92 per cent. consist of cheap towels from Japan of a non-competitive grade. The United Kingdom contributed 5 per cent. of high grade towels. The comprehensive heading of " other sorts " was contributed to by the United Kingdom (34 per cent.), Germany (22 per cent.), Japan (14 per cent.), Italy (8 per cent.), France (6 per cent.) and Czecho-Slovakia (5 per cent.). The preferential margin of 10 per cent. should assist United Kingdom shippers to improve their share.

Boots and Shoes.—As a result of the heavy duty of 25 per cent., or 5 annas per pair whichever is higher, imposed on the miscellaneous types of footwear, the remarkable incursion of millions of pairs of Japanese rubber-soled shoes of the cheapest type has been checked to some extent. The total imports were classified, according to type, as follows:—

Description	1931/32		1932/33	
	Pairs	Rs. (lakhs)	Pairs	Rs. (lakhs)
All leather	244,072	11	424,910	14
Rubber soled—				
With canvas uppers	6,435,496	42	6,414,283	30
With uppers of leather or other material	131,682	1	35,945	—
All rubber	2,543,590	9	813,109	3
Of other materials ...	134,712	2	193,273	3

The heavy fall in Japanese prices consequent upon the depreciation of the yen is evident from a comparison of quantities and values. In 1931/32, the average price of rubber-soled shoes with canvas uppers was Rs.0.65 (say one shilling) per pair, whereas in 1932/33, it was only Rs.0.46 (say 8½d.) per pair.

The provenance of the imports was as follows :—

Countries of Consignment	1931/32		1932/33	
	Pairs	(Rs. lakhs)	Pairs	Rs. (lakhs)
United Kingdom ...	153,249	7	206,854	6
Germany	63,932	1	93,085	1
Austria	6,512	*	2,327	†
Czechoslovakia ...	63,036	2	268,462	5
Japan	8,734,243	49	6,891,752	32
Other Countries ...	468,580	6	419,040	8
Total imports	9,489,552	65	7,881,520	52

* Rs.34,262 † Rs.21,161

The United Kingdom trade in leather shoes has fallen in five years to one-quarter of its former value. This is mainly due to restricted purchasing power, which has resulted in the substitution of Japanese rubber-soled footwear, but is also attributable to the competition from the Bata Works, Zlin, Czechoslovakia. Messrs. Bata now operate a well-equipped factory at Calcutta, thereby avoiding the import duty, so that although the United Kingdom suppliers now enjoy a preferential margin of 10 per cent., they will have to face the competition of similar types of shoes made in India. In 1931/32, the imports of canvas shoes with rubber soles were drawn from Japan (93 per cent.) and Italy (2½ per cent.). United States and Canadian products have been driven from the market by Japanese goods. All-rubber shoes were entirely drawn from Japan. Shoes of other materials were supplied by Italy (38 per cent.)—probably Czechoslovak goods in transit—Czechoslovakia (25 per cent.), and the United Kingdom (16 per cent.).

Leather. —The imports of unmanufactured leather were :—

Description	1931/32 Rs. (lakhs)	1932/33 Rs. (lakhs)
Hides, tanned or dressed	1	2
Skins, tanned or dressed	8	13
Unwrought	5	4
Leather Cloth (including artificial leather)	4	4

The imports of tanned or dressed hides in 1931/32 were drawn in almost equal proportions from the United States, the United Kingdom and Ceylon. Dressed or tanned skins are obtained from the United States, Germany and the United Kingdom. Unwrought leather is contributed by the United States (55 per cent.), the United Kingdom (30 per cent.), and Germany (8 per cent.). The United Kingdom has improved its share of leather cloth to 61 per cent., the United States competing with 20 per cent. From the point of view of the United Kingdom manufacturer, the more important import is that of leather manufactured goods :—

Description	1931/32 Rs. (lakhs)	1932/33 Rs. (lakhs)
Bags and Trunks	1	1
Pickers	5	5
Picking bands and straps	7	8
Roller skins	7	6
Saddlery and harness	1	—
Other sorts	7	7

The United Kingdom in 1931/32 supplied over 60 per cent. of the unimportant trade in bags and trunks. United Kingdom makers supply the bulk of the leather specialities for the jute and cotton mills, but there is some competition from Holland (10 per cent.) in pickers and from France (16 per cent.) and Holland (16 per cent.) in picking bands and straps. Practically the whole of the roller skins and of the saddlery and harness is imported from the United Kingdom. Of fancy manufactured leathers (other sorts) the United Kingdom sent 57 per cent., the United States 28 per cent. and Germany 9 per cent. By the terms of the Ottawa Trade Agreement, tanned or dressed skins, unwrought leather, leather cloth and other manufactures of leather (except pickers, roller skins, saddlery and harness and bags and trunks) are subject to a preferential margin of 10 per cent. The following table shows the origin of the total imports of leather and leather goods :

Principal Countries of Consignment	1931/32 Rs. (lakhs)	1932/33 Rs. (lakhs)
United Kingdom	25	24
Germany	4	6
U.S.A.	10	11
Other Countries	6	9
Total	45	50

Belting for Machinery.

Cotton Belting.—

Countries of Origin	1931/32 Rs. (lakhs)	1932/33 Rs. (lakhs)
United Kingdom	4	6
Other Countries	1	1
Total	5	7

In 1931/32 Germany sent Rs.50,000 and the United States Rs.16,000 worth.

Leather Belting.—After a sharp drop from the figures of 1929/30, the total trade partially recovered but the depression in Indian industries is still retarding progress.

Countries of Origin	1931/32 Rs. (lakhs)	1932/33 Rs. (lakhs)
United Kingdom	15	16
U.S.A.	8	7
Other Countries	3	3
Total	26	26

Although United States shipments have fallen away during the past 18 months due to the depreciation of the sterling exchange, the two or three United States manufacturers of high grade belting still compete keenly and are well represented. " Other countries " in 1931/32 included Holland (Rs.88,000), Germany (Rs.56,000) and Japan (Rs.62,000).

There is no preferential duty on any form of belting as it is regarded by the Government of India in the light of a raw material of industry.

Belting of other materials (including Coir).

Countries of Origin	1931/32 Rs. (lakhs)	1932/33 Rs. (lakhs)
United Kingdom	13	14
Germany	3	2
United States	2	1
Other Countries	1	3
Total	19	20

" Other countries " in 1931/32 include Japan (Rs.90,000) and Belgium (Rs.16,000). Competition from at least one Calcutta manufacturer is met with in camel hair and canvas belting.

Bobbins.—*Paripassu* with the increased activity in the Indian cotton mill industry, imports of bobbins continued to advance until 1930/31, since when there has been a sharp setback, probably due to enforced economies as a result of unprofitable trade.

Countries of Origin	1930/31 Rs. (lakhs)	1931/32 Rs. (lakhs)	1932/33 Rs. (lakhs)
United Kingdom	34	24	19
Germany	2	3	4
Other Countries	7	5	6
Total ...	43	32	29

In 1929/30 the United Kingdom secured 88 per cent. of the trade but owing partly to political feeling on the part of certain Indian mills, the United Kingdom share fell to 67 per cent. in the year under review. The imports from Japan increase steadily and in 1931/32 totalled over Rs.3½ lakhs.

Books and Printed Matter.—The effects of enforced economy due to the economic depression are evident in the marked decline in the imports of literature of all kinds:—

1930/31	1931/32	1932/33
Rs.60,91,405	Rs.53,38,433	Rs.46,37,677

In 1931/32 the United Kingdom contributed 81 per cent., the United States 10 per cent. and Germany 3 per cent. United Kingdom publishing and scholastic supply firms are strongly represented and maintain their share of the trade.

Stationery (excluding Paper).—Although there was a slight recovery during the year, the total imports have declined by 25 per cent. from the peak of 1929/30.

Countries of Consignment	1930/31 Rs. (lakhs)	1931/32 Rs. (lakhs)	1932/33 Rs. (lakhs)
United Kingdom	44	36	33
Germany	20	16	21
Japan	5	5	9
U.S.A.	4	3	2
Other Countries	8	8	7
Total	81	68	72

The United Kingdom has lost ground since 1929/30, when she supplied 53 per cent. of the trade, but it is hoped that the preferential margin of duty of 10 per cent. which she now enjoys on most items (excluding paper and slate pencils) will assist against German and American competition. Japanese supplies are so low-priced as to be beyond the competitive range. "Other countries" include Sweden, Italy and Austria.

Tobacco.—The phenomenal fall in the total imports of tobacco has at last been checked as a result of a remarkable expansion in the imports of leaf tobacco due to increased manufacture of cigarettes in India. The imports of cigarettes continue to decline and are now less than one-eighth of the total value in 1927/28. In my last report I commented upon the serious situation caused by the boycott movement and stated that the depression and political agitation of 1930 affected the import trade in tobacco more than any other important United Kingdom trade with the single exception of cotton piecegoods. While the political agitation has died down, the problem of restricted purchasing power is still acute. Moreover, the imposition of additional emergency import duties is placing the imported cigarette beyond the purchasing capacity of a large section of the population. To meet this price difficulty

and also to conform to the growing " swadeshi " sentiment, the Companies concerned are greatly expanding their production in India. The following are the principal forms in which tobacco was imported :—

Description	1930/31 lbs.	1931/32 lbs.	1932/33 lbs.
Unmanufactured tobacco	1,608,381	2,844,919	5,115,672
Cigars	32,514	21,358	15,030
Cigarettes	3,059,692	1,435,980	831,571
Tobacco for pipes and cigarettes ...	189,648	129,433	48,629
Other sorts	39,752	45,766	40,729
Total	4,929,987	4,477,456	6,051,631

The remarkable increase in the production of cigarettes in India is evidenced by the greater importations of leaf tobacco, while the effect of crushing taxation at a time of restricted purchasing capacity is seen in the decline in imports of all types of manufactured tobaccos. The provenance of the imports of cigarettes was as follows :—

Countries of Consignment	1930/31 Rs. (lakhs)	1931/32 Rs. (lakhs)	1932/33 Rs. (lakhs)
United Kingdom	1,18	49	26
China	2	3	1
Other Countries	2	1	2
Total	1,22	53	29

Imports from the United Kingdom were £1,500,000 less in value than in the year 1927/28 and allowing for a recovery from the abnormally depressed situation in 1932/33, it is to be feared that there will be a permanent reduction of approximately £1,000,000 sterling in the United Kingdom export trade.

Rubber Manufactures.—*Rubber Tyres.*

(1) *Pneumatic Motor Covers.*—The diminution in the total trade continues but with reduced intensity so far as values are concerned. Quantities, however, were lower by 56,366 covers, The provenance of the imports was as follows :—

Countries of Consignment	1930/31 Rs. (lakhs)	1931/32 Rs. (lakhs)	1932/33 Rs. (lakhs)
United Kingdom	37	31	45
Germany	17	8	8
France	7	8	6
Italy	13	12	14
Canada	20	7	5
U.S.A.	69	66	40
Other Countries	5	3	8
Total	1,68	1,35	1,26

The outstanding features of the year were the slight improvement in tyre prices and the heavy fall in imports from the United States as a result of the depreciation in the sterling exchange. It is satisfactory to note that United Kingdom manufacturers have greatly improved their position and, with a 10 per cent. preference in their favour, should materially advance their share of the trade in future. The principal United States companies now operate plants in the United Kingdom and will probably fulfil Indian orders from these factories in order to avail themselves of the preference.

(2) *Pneumatic Motor Cycle Covers.*—Just as the motor cycle trade in India is relatively unimportant, so is that of the tyres required for them :—

	1931/32 Rs. (lakhs)	1932/33 Rs. (lakhs)
From—United Kingdom	0.61	0.51
,, U.S.A.	0.09	0.08
,, Other Countries	0.36	0.22
Total	1.06	0.81

(3) *Pneumatic Cycle Covers.*—The reduction of imports of pedal bicycles during the past few years has caused some reduction in the tyres required for renewals.

	1931/32 Rs. (lakhs)	1932/33 Rs. (lakhs)
From—United Kingdom	15	12
Germany	3	1
France	3	1
Other Countries	4	5
Total	25	19

" Other countries " in 1931/32 included Italy (Rs.3½ lakhs) and Japan (Rs.23,000).

(4) *Solid Rubber Tyres for Motor Vehicles.*—The recently extended use of pneumatic tyres on heavy vehicles is accountable for a large share of the reduced trade.

	1931/32 Rs. (lakhs)	1932/33 Rs. (lakhs)
From—United Kingdom	2	2
Germany	1	—
U.S.A.	1	1
Other Countries	—	—
Total	4	3

(5) *Tubes.*—The statistics for the past two years are :—

	1931/32 Rs. (lakhs)	1932/33 Rs. (lakhs)
Pneumatic motor tubes	20	18
,, motor cycle tubes	0.35	0.27
,, cycle tubes	13	10

Other Manufactures of Rubber (except Apparel and Boots and Shoes).—The total imports aggregated :—

1930/31 Rupees	1931/32 Rupees	1932/33 Rupees
24,33,086	22,82,191	22,05,266

This omnibus heading includes mechanical rubbers of all kinds, vacuum brake fittings, rubber hose, etc., and has followed the depression in most Indian industries since 1927/28. In 1931/32 the United Kingdom secured 38 per cent., the United States 28 per cent., Germany 20 per cent. and Japan 4 per cent. The competition from Japan will probably increase at the expense of the United States and the Continent. In view of the active branch distributing organisations maintained in Indian by the leading United Kingdom manufacturers coupled with a 10 per cent. preference, the United Kingdom share should be greater in future.

Instruments, Apparatus, Appliances and Parts thereof.—This comprehensive classification is made up as follows :—

Description	1931/32 Rs. (lakhs)	1932/33 Rs. (lakhs)
Electrical Apparatus	2,23	2,34
Musical Instruments	22	24
Optical Instruments	6	7
Cinematograph films—raw	9	11
,, ,, exposed	17	19
Photographic Apparatus	32	31
Scientific Instruments	14	14
Surgical Instruments	14	14
Wireless Apparatus	9	10
Other Kinds	23	21
Total Imports	3,69	3,85

In 1931/32 the United Kingdom contributed 50 per cent. of the total, the United States 17 per cent., Germany 16 per cent., Holland 4 per cent. and lesser values from Japan, Belgium, Italy, France, Czechoslovakia, Austria, etc. Analysing the various sub-headings we find that:—

Musical Instruments.—The United Kingdom in 1931/32 supplied 55 per cent., Germany 23 per cent., Switzerland 6 per cent. and the United States 5 per cent. German competition is principally in band instruments and talking machine accessories. The United States supplies small quantities of talking machines and accessories and miscellaneous instruments. The imports from Switzerland are almost entirely gramophone accessories. The principal United Kingdom group of gramophone manufacturers produce records in India on an increasing scale.

Optical Instruments.—The hold which Germany formerly held on this trade seems to be passing to Japan. The imports in 1931/32 were derived as follows:—United Kingdom 14 per cent., Germany 30 per cent., Japan 42 per cent. and France 10 per cent.

Cinematograph Films—Raw.—In 1931/32, the last year for which details are available, the imports were:—

Countries of Consignment	Length in ft.	Rs. (lakhs)
United Kingdom	3,150,500	1
Germany	8,416,685	4
Belgium	5,079,924	2
U.S.A.	5,055,257	2
Total Imports (from all sources)... ...	22,346,043	9

The principal port of entry is Bombay. With the developing Indian industry, the demand for raw films should expand considerably and, as United Kingdom manufacturers now enjoy a preference of 10 per cent. the United Kingdom share should improve.

Cinematograph Films—Exposed.—The imports in 1931/32 were as follows:—

Countries of Consignment	Length in ft.	Rs. (lakhs)
United Kingdom	895 656	2
Ceylon	1,271,555	1
Germany	1,105,115	2
France	717,325	1
U.S.A.	4,420,021	11
Total Imports (from all sources)... ...	8,979,862	17

During the past two years there has been a remarkable development in the display of United Kingdom films, thanks to the enterprise of the owners of the New Empire Theatre, Calcutta, who endeavour to maintain a constant display of the best United Kingdom productions not only in their own theatre but in an extensive

circuit of cinemas throughout India, Burma and Ceylon. The popularity of United Kingdom films proves that if only our producers will take greater pains to cultivate the market, their enterprise will be rewarded. As I have repeatedly stated, I regard India as one of the most promising outlets in the Empire for British films. Imports from the United States were reduced for the first time in 1931/32 and it is probable that a further fall will be recorded during 1932/33. United States producers are very active with an elaborate organisation supervised by resident representatives. They are, at the moment, endeavouring to stage a revival by quoting remarkably low prices. There is no preferential duty on United Kingdom exposed films. Attention should be called to the recent remarkable increase in imports of films from Ceylon at the low average declared value of Rs.0.08 per foot as compared with an average declared value in the case of imports from the United States of Rs.0.25 per foot. There would appear to be an attempt at evasion of Customs duties by this route.

Photographic Apparatus.—The trade is being maintained in spite of the depression. In 1931/32 the United Kingdom supplied 38 per cent., the United States 32 per cent. and Germany 22 per cent. The preferential duty of 10 per cent. should induce suppliers such as the Kodak Company to supply the Indian market from their works in England and will give a valuable fillip to the United Kingdom producer.

Scientific and Philosophical Instruments.—The trade is contributed to by the United Kingdom (63 per cent.), Germany (22 per cent.) and the United States (10 per cent.). This heading includes a wide variety of instruments and apparatus such as laboratory apparatus, surveying instruments, meteorological instruments, nautical instruments, drawing and mathematical instruments and measuring and recording instruments. An exhaustive report on the market in India for optical and scientific instruments was recently submitted to the Department of Overseas Trade, to whom application should be made by firms interested.

Surgical Instruments.—The imports have registered a steady fall since 1927/28. During 1931/32 the United Kingdom supplied 53 per cent., Germany 28 per cent. and the United States 11 per cent. German and United States competition has shown a tendency to increase of recent years. German makers are quoting very low rates for instruments which are good enough for the purpose and which attract many Indian surgeons to whom low-price is the main desideratum. An exhaustive report on the Indian market has recently been compiled by H.M. Trade Commissioners at Calcutta and Bombay and can be consulted at the Department of Overseas Trade.

Wireless Apparatus.—The total imports have risen from Rs.9 to Rs.10 lakhs during the past year mainly on account of plant extensions to the large transmitting and receiving stations operated

by the Indian Radio and Cable Communications Co., Ltd. Particulars of the developments of the wireless beam telegraph service and the wireless telephone service between India and the United Kingdom will be found in Chapter I. The Government of India State Broadcasting Service continues to operate and should be given a fresh lease of life by the inauguration in December, 1932, of the Empire Broadcasting Service from the United Kingdom. Atmospherics, however, seriously interfere with the service in many places and have, so far, prevented any very extensive development in the sale of short-wave receiving sets. There seems to be little doubt, however, that these difficulties will, in time, be surmounted. The Indian market is one which would seem to present long-range possibilities when the physical difficulties and problems of finding local talent are overcome. Detailed reports on the conditions and prospects of the Indian market for wireless receiving apparatus have recently been submitted by H.M. Trade Commissioners at Calcutta and Bombay and may be consulted on application to the Department of Overseas Trade. The following statement gives the imports of wireless apparatus during the past two years :—

Countries of Consignment	1931/32 Rs. (lakhs)	1932/33 Rs. (lakhs)
United Kingdom ...	6.63	8.39
Germany	0.50	0.50
Netherlands	1.14	0.65
U.S.A.	0.85	0.61
Other Countries	0.26	0.23
Total	9.38	10.38

By the terms of the Ottawa Trade Agreement, all wireless reception instruments and apparatus and component parts thereof, including all electric valves, amplifiers and loud speakers which are not specially designed for purposes other than wireless reception or are not original parts of and imported along with instruments or apparatus so designed are subject to an import duty of 40 per cent. if imported from the United Kingdom and 50 per cent. if imported from other countries.

Electrical Apparatus.—Although there was a recovery in the total imports in 1932/33 from Rs.223 to Rs.234 lakhs, the trade has suffered from the prevailing economic slump and has fallen from a peak of Rs.361 lakhs in 1929/30. Even so, it is to-day more than three times the value of the average annual pre-war figures. The following statement gives the description and value of the several classes of electrical apparatus imported during the last three years :—

	1930/31	1931/32	1932/33
	Rs. (lakhs)	Rs. (lakhs)	Rs. (lakhs)
Electric fans and parts thereof ...	26	19	22
,, wires and cables	1,05	60	59
Telegraph & telephone instruments	5	5	5
Electric lamps and parts thereof ...	59	54	55
Batteries	13	11	13
Carbons, electric	3	3	3
Accumulators	18	9	9
Electric lighting accessories and fittings, including switches ...	9	8	8
Meters	7	7	10
Electro medical apparatus, including X-ray apparatus	3	3	3
Switch boards (other than telegraph & telephone)	3	3	2
Unenumerated	60	41	45
Total imports of all kinds	3,11	2,23	2,34

Analysing these statistics we find that so far as electric fans are concerned, the total trade advanced from Rs.19½ lakhs to Rs.22½ lakhs, the United Kingdom share being increased from Rs.10½ lakhs to Rs.13 lakhs and that of Italy from Rs.4 lakhs to Rs.4½ lakhs. Arrivals from other countries fell from Rs.4¾ to Rs.4¼ lakhs. Under the heading of electric wires and cables, the total imports fell slightly from Rs.60¼ lakhs to Rs.59 lakhs, the United Kingdom share being reduced from Rs.43¼ lakhs to Rs.41 lakhs. that of Germany from Rs.8¼ lakhs to Rs.6 lakhs and Belgium from Rs. 3 lakhs to Rs.2 lakhs. Arrivals from Japan, on the other hand, rose from Rs.1 lakh to Rs.7 lakhs. Telegraph and telephone apparatus amounting to Rs.5½ lakhs was imported, of which the United Kingdom supplied Rs.4 lakhs worth. The imports of gas filled electric bulbs fell from Rs.16 lakhs to Rs.14½ lakhs. Arrivals from the United Kingdom rose from Rs.7 lakhs to Rs.8 lakhs, while Dutch shipments fell from Rs.4¾ lakhs to Rs.3½ lakhs. Imports of vacuum electric bulbs totalled Rs.16 lakhs in 1931/32 and Rs.16¾ lakhs in the period under review. The United Kingdom share remained steady at Rs.5½ lakhs, that of Holland was slightly reduced from Rs.5¼ lakhs to Rs.4¾ lakhs, whereas imports from Japan advanced from Rs.2 lakhs to Rs.3¼ lakhs. The imports of electric bulbs for automobiles amounted to Rs.1½ lakhs, of which Rs.1 lakh from Japan, Rs.⅓ lakh from the Netherlands, Rs.¼ lakh from " other countries " and a trivial amount of Rs.11,000 from the United Kingdom. In the case of electric bulbs for torches, the total trade rose from Rs.2¼ lakhs to Rs.3¼ lakhs. Japanese shipments increased from Rs.½ lakh to Rs.1¼ lakhs and those from the United States from Rs.¾ lakh to Rs.1¼ lakhs. Imports from the United Kingdom were negligible at Rs.3,500.

The total trade in batteries rose from Rs.11 lakhs to Rs.13 lakhs. Imports from the United Kingdom grew from Rs.2 lakhs to Rs.3½ lakhs while those from the United States remained steady at Rs.7 lakhs and " other countries " at Rs.2 lakhs. Imports of accumulators also advanced from Rs.8½ lakhs to Rs.9 lakhs and the United Kingdom share from Rs.6 lakhs to Rs.8 lakhs. Arrivals from the United States amounted only to Rs.¾ lakh. The trade in electric lighting accessories and fittings (including switches), amounting to Rs.7¾ lakhs, was contributed to by Germany Rs.3¾ lakhs, the United Kingdom Rs.2¾ lakhs and " other countries " Rs.1¼ lakhs. The trade in meters advanced from Rs.6½ lakhs to Rs.10 lakhs, the United Kingdom share rising from Rs.3¼ lakhs to Rs.5½ lakhs, that of Germany from Rs.2 lakhs to Rs.2½ lakhs and " other countries " from Rs.1 lakh to Rs.1¾ lakhs. Electro-medical apparatus (including X-ray apparatus) amounting to Rs.3¾ lakhs was obtained from the United States Rs.1¼ lakhs, the United Kingdom Rs.¾ lakh and " other countries " Rs.1¼ lakhs. Practically the whole of the Rs.2 lakhs worth of switch-boards arrived from the United Kingdom. The imports of electrical goods and apparatus, not enumerated, rose from Rs.40 lakhs to Rs.51½ lakhs. The United Kingdom share remained steady at Rs.21½ lakhs, that of Germany rose from Rs.5½ lakhs to Rs.7½ lakhs, while that of the United States fell from Rs.10 to Rs.8½ lakhs.

The provenance of the total imports was as follows:—

Principal Countries of Consignment	1931/32 Rs. (lakhs)	1932/33 Rs. (lakhs)
United Kingdom	1,15	1,22
Germany	33	34
Netherlands	13	11
Belgium	5	3
Italy	5	6
Japan	5	17
U.S.A.	30	26
Other Countries	17	15
Total Imports ...	2,23	2,34

It is satisfactory to note that the United Kingdom percentage rose slightly from 51 to 52. Japanese competition was most severe in electric wires and cables (Rs.6 lakhs worth of bare copper wire), vacuum electric bulbs and electric bulbs for torches and automobiles, and miscellaneous electrical apparatus. By the terms of the Ottawa Trade Agreement, a preferential rate of duty of 10 per cent. is granted on the following items of electrical apparatus:— electric fans and parts thereof; certain specified electric wires and cables; standard lighting lamps; batteries; certain accumulators; electric lighting accessories and fittings (including switches);

meters (other than telegraphic and telephonic); electro-medical apparatus (including X-ray); other electrical instruments (other than telegraphic and telephonic) except meters; other electrical goods and apparatus (except certain electric wires and cables, telegraph and telephone instruments and apparatus, flash lights, parts and accessories of electric lamps, carbons, condensers, bell apparatus and switch boards).

Earthenware and Porcelain.—The classification includes:—

Articles	1931/32 Rs. (lakhs)	1932/33 Rs. (lakhs)
Pipes of Earthenware ...	*	†
Sanitary ware	7	5
Other kinds of Earthenware	14	14
Electrical Porcelain ...	1	1
Other kinds of Porcelain ...	16	29
Total Imports ...	38	49

* Rs.5,888. † Rs.5,902.

Earthenware pipes are now manufactured in India and the imports are confined to specialities. Of the sanitary earthenware, the United Kingdom in 1931/32 supplied 80 per cent., Germany 12 per cent. and France 5 per cent. This trade is strongly held by United Kingdom manufacturers, who are well represented and hitherto have enjoyed practically the whole of the trade. Competition from Japan has been experienced during the past year. Other kinds of earthenware were, in 1931/32, contributed by the United Kingdom (51 per cent.), Japan (22 per cent.) and Germany (7 per cent.). Most of the imports from Holland and Belgium were probably German goods shipped from Rotterdam or Antwerp. The actual German share is probably about 20 per cent.

The meagre imports of electrical porcelain were drawn from the United Kingdom (26 per cent.), Germany (51 per cent.) and Japan (21 per cent.). Other kinds of porcelain, including cheap tableware, common crockery, etc., were imported, in 1931/32, from Japan (84 per cent.), the United Kingdom (6 per cent.) and Germany (4 per cent.). Staffordshire makers have lost to Japan the valuable trade in cheap tableware which they formerly held in the Bombay, Calcutta, Karachi and Rangoon markets, as it is, in practice, impossible for them to meet Japanese prices.

The total imports of earthenware and porcelain in 1932/33 were derived as follows:—

Countries of Consignment	1931/32 Rs. (lakhs)	1932/33 Rs. (lakhs)
United Kingdom ...	14	12
Germany	3	3
Japan	17	32
Other Countries	4	2
Total Imports ...	38	49

During the past year, aided by the depreciation of the yen, Japan has flooded all Indian markets with earthenware and porcelain of all kinds at prices, with which it is impossible for Europe to compete. Although United Kingdom manufacturers now enjoy a 10 per cent. preference on all sorts of earthenware, china and porcelain except earthenware pipes and sanitary ware, this is not sufficient to bridge the gap between their prices and those of the Japanese products. It may, however, enable them to recover a certain amount of the trade from the Continent.

Glass and Glassware.—The following statement shows the types of imported glass and glassware :—

Description	1931/32 Rs. (lakhs)	1932/33 Rs. (lakhs)
Bangles	35	40
Beads and false pearls ...	9	12
Bottles and phials... ...	24	24
Funnels, globes and glass parts of lamps	7	7
Scientific glassware ...	1	1
Sheet and plate glass ...	20	23
Tableware	6	5
Other glassware	20	30
Total Imports	1,22	1,42

The heavy drop since 1929/30 in the imports of bangles and beads, which are the trinkets of the poorest classes, reflects the severity of the economic depression and its effect in reducing the purchasing power of the people. It is encouraging to note that there was a slight recovery in 1932/33. The provenance of the total imports was as follows :—

Countries of Consignment	1931/32 Rs. (lakhs)	1932/33 Rs. (lakhs)
United Kingdom	13	12
Germany	20	18
Belgium	13	15
Austria	1	1
Czechoslovakia	23	23
Italy	2	2
Japan	42	65
Other Countries	8	6
Total	1,22	1,42

The United Kingdom is not concerned with the imports of glass bangles and beads, the former being a speciality of Czechoslovakia and Japan, which countries divided the supply in 1931/32, and the latter being provided by Japan, Czechoslovakia and Italy.

In 1931/32 the imports of sodawater bottles (totalling over Rs.9 lakhs in 1931/32) were supplied by Germany (48 per cent.), the United Kingdom (41 per cent.) and Japan (3 per cent.). Japanese competition will probably increase. Other kinds of bottles were drawn from Japan (55 per cent.), Germany (32 per cent.) and the United Kingdom (5 per cent.). Even the Continental glass manufacturers are not able to reduce their prices to the level of Japanese quotations. The trade in funnels, globes and glass parts of lamps was shared by Germany (40 per cent.), Czechoslovakia (15 per cent.), Austria (8 per cent.), the United States (9 per cent.) and the United Kingdom a meagre 4 per cent. The trifling imports of scientific glassware were drawn from Germany (62 per cent.) and the United Kingdom (25 per cent.). In plate and sheet glass, however, the United Kingdom supplied 16 per cent., representing the finer qualities, while Belgium (60 per cent.) shipped large quantities of cheap window glass. Tableware was obtained from Japan (59 per cent.), Germany (12 per cent.), the United Kingdom (11 per cent.) and Belgium (6 per cent.). Miscellaneous glassware was drawn from Japan (49 per cent.), the United Kingdom (14 per cent.), Germany (13 per cent.) and lesser values from Austria, Italy, Belgium and France. Glassware is not subject to any preferential duties.

Building and Engineering Materials (Other than Iron, Steel and Wood.)—The slowing down of most Indian industries coupled with reduced building activity is responsible for the drop in the total imports from Rs.110 lakhs in 1930/31 to Rs.77 lakhs in the year under review. The principal items in the classification are the following :—

Description	1930/31 Rs. (lakhs)	1931/32 Rs. (lakhs)	1932/33 Rs. (lakhs)
Asphalt	28	21	27
Bricks (other than firebricks) ...	*	†	‡
Firebricks	2	1	1
Portland Cement	52	38	27
Cement (other kinds)	3	2	2
Tiles...	15	13	12
Other kinds...	10	9	8
Total Imports	1,10	84	77

*Rs.4,469. †Rs.5,604. ‡Rs.19,619.

Detailed figures for 1932/33 are not yet available but in the previous year the imports of asphalt were obtained from Egypt (40 per cent.), the Netherlands (26 per cent.), the United States (23 per cent.) and Trinidad (3 per cent.). The projected development of Indian roads during the coming years will provide an increasing

market for asphalt and it is to be hoped that the 10 per cent. preference will assist the Trinidad exporters. The trifling imports of bricks were mainly obtained from the United Kingdom. Firebricks were supplied by the United Kingdom (95 per cent.). The important trade in tiles is shared by Italy (28 per cent.), Belgium (23 per cent.), the United Kingdom (19 per cent.) and Japan (15 per cent.).

Cement.—The imports of cement were drawn from :—

Countries of Consignment	1931/32		1932/33	
	Tons	Rs. (lakhs)	Tons	Rs. (lakhs)
United Kingdom	45,159	25	34,288	17
Germany	1,273	1	778	—
Japan	28,998	9	39,274	8
Other Countries	12,387	6	8,291	4
Total	87,817	41	82,631	29

Of the imports of cement in 1931/32, 86,396 tons valued at Rs.38½ lakhs consisted of Portland cement and 1,421 tons valued at Rs.2 lakhs included other kinds of cement. Three-quarters of the imported cement is for the Burma and South Indian markets which are at present sufficiently remote from the Indian cement works to be free from their competition. The local works produce cement fully equal to the British Standard Specification at a reasonable price. It is likely therefore that the import trade may fail to show much expansion in the future.

The import duty on Portland cement excluding white Portland cement is Rs.13/12 per ton on imports from the United Kingdom and Rs.18/4 per ton from other sources. The duty on building and engineering materials, all sorts not of iron, steel or wood not otherwise specified, including cement (excluding Portland cement other than white Portland cement), tiles other than glass tiles, and firebricks not being component parts of any article included in the headings for machinery or railway material, is 20 per cent. *ad valorem* on imports from the United Kingdom and 30 per cent. *ad valorem* from other sources.

Hardware (excluding Cutlery and Electro-Plated Ware).—The pre-war annual average imports of hardware amounted in value to Rs.317 lakhs. By 1927/28 they had advanced to Rs.524 lakhs, since when there has been a steady falling-off until the nadir was reached in 1931/32 with an aggregate of Rs.261 lakhs. During the past year, however, there has been a marked improvement to Rs.299 lakhs. These noteworthy figures give a clue to the extent of the recent slump in the case of an essentially cheap bazaar trade such as hardware. The following table gives the details during the past two years :—

Article	1931/32 Rs. (lakhs)	1932/33 Rs. (lakhs)
Agricultural Implements	5	6
Buckets of tinned or galvanised iron ...	1	—
Builders' hardware	25	27
Domestic hardware, other than enamelled ironware	8	9
Enamelled Ironware	15	23
Gas Mantles	4	9
Implements and tools (other than agricultural implements and machine tools)	35	35
Lamps, metal	31	41
Lamps, glass	*	†
Parts of lamps other than glass	4	5
Safes and strong boxes of metal	‡	§
Stoves	5	4
Other sorts	1,28	1,40
Total Imports	2,61	2,99

* Rs.35,025 † Rs.20,970 ‡ Rs.40,009 § Rs.33,559

The provenance of the imports during the same years was as follows :—

Countries of Consignment	1931/32 Rs. (lakhs)	1932/33 Rs. (lakhs)
United Kingdom	96	91
Sweden	12	15
Germany	76	1,08
Austria	4	5
Japan	16	30
United States	27	17
Other Countries	30	33
Total	2,61	2,99

The next statement gives the percentage shares of the leading suppliers over a period of years :—

	1913-14 (pre-war year)	1929-30	1930-31	1931-32	1932-33
	Per cent.	Per cent.	Per cent.	Per cent.	Per cent.
United Kingdom	57	35	36	37	30
Germany ...	18	33	30	29	36
United States ...	10	12	12	10	6
Japan	1	5	6	6	10
Other Countries...	14	15	16	18	18
Total ...	100	100	100	100	100

Prior to 1932/33, the share of the United Kingdom had remained fairly constant, but it is clear from the above figures that Germany and Japan have not only secured the whole of the increased business

but, in addition, have absorbed a large portion of the trade hitherto obtained by the United Kingdom and the United States. This steady encroachment by Germany is a matter for serious concern. As I have repeatedly stated, Germany is ousting us from the bazaar trades with goods frequently below the United Kingdom article in quality, but so far below it in price that dealers cannot afford to pay the premium required for the better quality; in fact they make a higher rate of profit for themselves on the Continental article. Although United States manufacturers, for exchange reasons, have suffered a reverse during the past year, their competition in higher-grade tools, which were hitherto largely supplied by Sheffield and Birmingham, is normally very keen: active marketing methods, special attention to the precise needs of the consumer and generous treatment of agents rather than low prices are responsible for their success. Swedish competition is encountered in builders' hardware, stoves and miscellaneous items. Japanese shipments are mainly enamelled ironware and miscellaneous types, which compete more with the Continent than with the United Kingdom.

The United Kingdom manufacturer, by the terms of the Ottawa Trade Agreement, now enjoys a 10 per cent preference on all hardware, ironmongery and tools excluding agricultural implements not otherwise specified, buckets of tinned or galvanised iron and machine tools. This fiscal aid should be of value in recovering trade from the United States, Sweden and Germany, but will not, of itself, suffice unless it is followed up by much more active marketing, consideration of the needs of agents and distributors, and serious endeavour to supply the precise article required at a competitive price.

The following notes give the statistical position in each section of the trade:—

Agricultural Implements.—In 1931/32 the United Kingdom supplied 87 per cent., the United States 8 per cent. and Germany 4 per cent. The implements included in this heading are mainly the better class hoes, forks, etc., for use on the European-managed tea gardens of Assam or Southern India. Owing to the depression in the tea industry the business has fallen to one-third of its volume in 1927/28, but it is hoped that the recent international tea output restriction scheme will restore the industry to prosperity. Competition from the Agricultural Implements Co. of Jamshedpur (a branch of the Tata Iron and Steel Co., Ltd.) is growing and their cheaper productions find an increasing market particularly in difficult times like the present when cheapness is the main consideration.

Galvanised Buckets.—The imports into India Proper have practically ceased for some years as buckets are now made locally from imported sheet and galvanised after manufacture. Burma normally imports about £10/15,000 worth per annum, but this business fell to £4,000 with last year, of which over 80 per cent. was supplied by the United Kingdom and the balance from Germany.

Builders' Hardware such as Locks, Hinges, Door Bolts, etc.—The imports in 1931/32 were drawn from the United Kingdom (32 per cent.), Germany (41 per cent.) and Sweden (20 per cent.). Imports from the United States have fallen to 2½ per cent. The bazaars are stocked with cheap German productions; these meet the demand which is always present in India provided the price is sufficiently low. Local production of simple forms such as " Tower " bolts, plain locks, etc., etc., is growing and will increase under the stimulating influence of high import duties.

Domestic Hardware.—A similar state of affairs obtains in this trade. Arrivals from the United Kingdom represented 29 per cent., Germany 27 per cent., the United States 14 per cent., Sweden 8 per cent., and Japan 7 per cent. In the case of both builders' and domestic hardware, the 10 per cent. preference should stimulate United Kingdom exports if only the fiscal advantage is followed up by an intensive sales effort.

Enamelled Ironware.—The recovery has been considerable in 1932/33. In the previous year Japan supplied 58 per cent., Czechoslovakia 18 per cent., Germany 10 per cent. and the United Kingdom 6 per cent. Japan is gradually displacing the Continent from this trade, which is suffering from the competition of locally-manufactured aluminium hollowware.

Gas Mantles.—The past year witnessed a sharp rise in the total imports from Rs.4 to Rs.8½ lakhs. In 1931/32 Germany shipped 68 per cent., the United States 16 per cent. and the United Kingdom 9 per cent. The principal markets were Bombay and Calcutta.

Implements and Tools.—The total imports remained stationary at Rs.35 lakhs. In 1931/32 the United Kingdom supplied 48 per cent., the United States 22 per cent. and Germany 18 per cent. Lesser values were contributed by Sweden, France, Italy and Austria. United States competition is keen in high-grade tools. The 10 per cent. preference should be of advantage in meeting this, but United Kingdom manufacturers should take more interest in the supervision and support of their agents and in the distribution of their goods. In these times of intense competition it is not sufficient to make a sale cash against documents to a merchant in London and then expect him to do the rest. Calcutta is the principal market followed by Bombay, Karachi, Madras and Rangoon.

Metal Lamps.—In pre-war days Birmingham exporters enjoyed a valuable trade in house and hurricane lamps (the imports of which are enormous). They were first beaten by the competition of the United States in lanterns of the " Dietz " type. Of recent years, however, United States imports are being successfully challenged by German products. The total trade in 1931/32 amounted to 2,459,308 lamps valued at Rs.31 lakhs, of which Germany supplied 1,921,750 lamps valued at Rs.23 lakhs, the

United States 370,532 lamps valued at Rs.4½ lakhs, Austria 67,316 lamps valued at Rs.1⅓ lakhs and the United Kingdom 13,495 lamps valued at Rs.80,500.

Safes and Strong Boxes of Metal.—The import trade has fallen away to a mere £2,500 worth. This is due to the increasing Indian competition of such firms as the Godrej and Boyce Manufacturing Co. of Bombay, who turn out quite good safes for the Indian demand. Strong boxes of all kinds are made at Multan in the Punjab. Bankers' strong rooms and the highest grades of safes are still supplied by the United Kingdom makers who are strongly represented.

Stoves.—The imports have fallen from Rs.10 lakhs in 1927/28 to Rs.4½ lakhs in 1932/33. Sweden provided 56 per cent., the United Kingdom 23 per cent., Austria 9 per cent. and Germany 6 per cent. in 1931/32. Swedish wickless and other stoves are popular. The average price of the stoves imported from Sweden was Rs.3.75—say 5s. 6d. The principal markets are Bombay and Calcutta.

Other Sorts.—Unenumerated items included in this omnibus heading amount to nearly one-half of the total imports of hardware. The trade in 1931/32 was shared by the United Kingdom (46 per cent.), Germany (20 per cent.), the United States (9 per cent.), Japan (3 per cent.) and lesser values from Czechoslovakia, Sweden, Belgium, Holland, France and Italy.

Cutlery.—The classification distinguishes between pruning knives—a United Kingdom trade, which is not subject to a preferential duty—and ordinary cutlery, the imports of which from the United Kingdom are subject to a preference of 10 per cent. The total trade has been severely curtailed owing to the reduced purchasing power of the bazaars. Imports from Germany, the principal competitor, have been reduced by one-half during the past five years while those from the United Kingdom have fallen by more than 25 per cent.

	1930/31 Rs. (lakhs)	1931/32 Rs. (lakhs)	1932/33 Rs. (lakhs)
Pruning knives	2	1	1
Other kinds	24	20	23
Total Imports ...	26	21	24
of which from—			
United Kingdom	8	6	7
Germany	16	13	14
Other Countries	2	2	3
Total Imports ...	26	21	24

The United Kingdom supplied the whole of the pruning knives, imports of which were reduced owing to the depression in the tea industry. " Other countries " include the United States, the share of which fell from Rs.1⅓ lakhs in 1930/31 to Rs.¾ lakh in 1931/32, and Japan, the imports whence have risen from Rs.11,000 in 1930/31 to Rs.42,000 in 1931/32.

Polishes. —The total trade fell from Rs.26 lakhs in 1929/30 to Rs.19 lakhs in the year under review. The classification was made-up as follows :—

Article	1930/31 Rs. (lakhs)	1931/32 Rs. (lakhs)	1932/33 Rs. (lakhs)
Leather polish	13	12	12
Metal Polish	4	4	4
Wood polish	1	1	*
Other sorts	3	2	3
Total	21	19	19

* Rs.46,973

In 1931/32 the United Kingdom supplied 94 per cent. of the total. The United States provided 1½ per cent. of the leather polish, 5 per cent. of the metal polish, 5 per cent. of the wood polish and 14 per cent. of other sorts. Owing to exchange difficulties, however, there has been a marked diminution in United States shipments during the past two years. There is no preferential duty on polishes.

Arms, Ammunition and Military Stores.—The movements of the imports under this heading on account of the Government of India were as follows :—

1930/31 Rs. (lakhs)	1931/32 Rs. (lakhs)	1932/33 Rs. (lakhs)
44	23	38

These are, of course, exclusively drawn from the United Kingdom. There is also a valuable import trade on private account which is made up as follows :—

Description	1931/32 Rs. (lakhs)	1932/33 Rs. (lakhs)
Shotgun cartridges (filled)	8	8
Rifle and other cartridges (filled)	11	7
Cartridge cases (empty)	*	†
Explosives	20	15
Firearms and parts thereof	25	12
Gunpowder	1	1
Other sorts	3	1
Total imports	68	44

* Rs.25,926 † Rs.28,141

Filled cartridge cases were obtained in 1931/32 from the United Kingdom (86 per cent.), the United States (6 per cent.) and Germany (5 per cent.). The trifling values of empty cartridge cases were supplied by the United Kingdom (65 per cent.) and Germany. The valuable trade in explosives, which has fallen from Rs.28 lakhs in 1929/30 on account of the depression in the collieries and the non-ferrous mines of Burma is likely to receive an impetus from the recent prosperity of the Kolar goldfields and increased activity by the Burma Corporation. The United Kingdom provides 85 per cent., Belgium 8 per cent. and Germany 4 per cent. German competition is solely in blasting fuses while Belgium supplies gelatine dynamite (Rs.98,000) and small values of blasting fuses and dynamite. Of the firearms and parts thereof, the United Kingdom contributed 77 per cent., Germany 10 per cent., the United States 5 per cent. and Belgium 4 per cent. The trade has fallen to one-half of its normal volume due to reduced purchasing power and, to some extent, to the more rigid application of the Arms Act.

An exhaustive report on the trade in sporting arms and ammunition was issued by the Department of Overseas Trade in 1932. Firearms and cartridges are now subject to a preferential duty of 10 per cent. in the case of United Kingdom suppliers.

Brushes and Brooms.—This heading includes :—

Description	1931/32 Rs. (lakhs)	1932/33 Rs. (lakhs)
Paint and Varnish Brushes	2	2
Toilet brushes	4	7
Other brushes	3	3
Brooms	*	†
Total Imports	9	12

* Rs.34,715 † Rs.29,140

Paint and varnish brushes in 1931/32 were drawn from the United Kingdom (58 per cent.), Germany (32 per cent.) with small values from Italy and Austria. As regards toilet brushes, however, the position is reversed, the United Kingdom only supplying a negligible value (11 per cent.) while the United States contributed 42 per cent., Germany 29 per cent. and Japan 13 per cent. Although the United States manufacturers have received a setback during the past year on account of exchange, their enterprise in advertising and active salesmanship finds its reward in a steadily expanding trade. Other brushes for industrial and general use are supplied by the United Kingdom (53 per cent.), Germany (18 per cent.), Japan (13 per cent.), and the United States (7 per cent.). The small trade in brooms is shared by the United Kingdom and the Straits Settlements. The preferential duty of 10 per cent. on the imports of brushes of all kinds should assist United Kingdom manufacturers to recover their lost trade, if only they will follow up their advantage.

Toys and Requisites for Games and Sports.—As might have been anticipated in the case of a luxury item such as this, the total trade shrank from Rs.65 lakhs in 1929/30 to Rs.37 lakhs in 1931/32, but made a good recovery to Rs.47 lakhs last year. The totals were :—

1930/31 Rupees	1931/32 Rupees	1932/33 Rupees
49,06,240	37,04,346	47,32,699

Detailed figures for 1932/33 are not yet available, but in 1931/32 toys accounted for Rs.20½ lakhs and were derived from the United Kingdom (21 per cent.), Japan (45 per cent.), Germany (22 per cent.) and the United States (7 per cent.). Japan is displacing Germany from this trade with prices which are beyond competition. The United Kingdom share remains fairly steady.

Playing cards of a total value of Rs.9 lakhs were imported from the United States (45 per cent.), Belgium (37 per cent.) and the United Kingdom (12 per cent.), while requisites for games and sports were imported to the value of Rs.7½ lakhs and were drawn from the United Kingdom (67 per cent.), Norway (13 per cent.), Germany (9 per cent.) and the United States (5 per cent.). The development of sports and games among Indians during the past few years has been remarkable, but a growing proportion of the demand for playing requisites is being met from Indian factories at Sialkot and other towns in the Punjab. India exported last year over Rs.3 lakhs worth.

United Kingdom manufacturers now enjoy a preferential duty of 10 per cent. i.e. a rate of 40 per cent. *ad valorem* with a general rate of 50 per cent. This should enable them to encroach upon the United States and Belgian trade in playing cards and to increase their share of the business in toys and sports requisites. The high rate of duty, however, makes it difficult for them to compete with indigenous manufactures except on grounds of quality and established reputation.

Tea Chests (entire or in sections).—The total imports follow closely the fluctuating fortunes of the Indian tea industry and have fallen from Rs.63½ lakhs in 1930/31 to Rs.48 lakhs last year :—

Countries of Consignment	1930/31 Rs. (lakhs)	1931/32 Rs. (lakhs)	1932/33 Rs. (lakhs)
United Kingdom	48	37	34
Russia	*	†	‡
Finland	3	2	3
Esthonia	9	6	5
Other countries	3	5	6
Total	63	50	48

* Rs.42,995 † Rs.31,597 ‡ Rs.32,561

Nearly Rs.3 lakhs' worth of metal tea chests, almost entirely drawn from the United Kingdom, were imported into the Madras Presidency in 1931/32. Imports of wooden tea chests from Japan have shown regular expansion of recent years and were valued at Rs.1 lakh in 1931/32. Germany also shipped Rs.3¾ lakhs worth in that year but these were probably goods in transit from Esthonia and Finland.

Umbrellas and Umbrella Fittings.—The imports of complete umbrellas, including parasols and sunshades, were as follows :—

Countries of Consignment	1931/32		1932/33	
	No.	Rs. (lakhs)	No.	Rs. (lakhs)
United Kingdom ...	38,599	1	28,380	1
Other Countries ...	53,406	1	280,573	2
Total ...	92,005	2	308,953	3

The trade is about one-third of its value in 1928/29, partly by reason of the depression and partly on account of the growing practice of assembling umbrellas in the country from imported cloth and fittings. France is the principal supplier under the heading of " other countries."

Umbrella Fittings.—Imports are approximately one-half the total of 1928/29, and were derived as follows :—

Countries of Consignment	1930/31 Rs. (lakhs)	1931/32 Rs. (lakhs)	1932/33 Rs. (lakhs)
United Kingdom	5	5	3
Germany	14	11	7
Japan	9	10	13
Other Countries	1	2	2
Total ...	29	28	25

During the period of depression, low Japanese prices have had the effect of diverting the trade from Germany. It is to be expected that Japanese imports will increase still further. Italy was the principal " other country." The United Kingdom now enjoys a 10 per cent. preference on all umbrellas and umbrella fittings.

Jewellery and Plate of Gold and Silver (excluding imitation Jewellery, Precious Stones and Pearls Unset).—

Article	1930/31 Rs. (lakhs)	1931/32 Rs. (lakhs)	1932/33 Rs. (lakhs)
Jewellery	34	13	30
Plate of Gold and Silver	5	6	4
Total	39	19	34

It is surprising that the 50 per cent. general rate of import duty has not caused a greater reduction. In 1931/32 the imports of jewellery were drawn from the United Kingdom (96 per cent.) and small consignments from Ceylon, the Straits and Kenya Colony. The United Kingdom provided 64 per cent. of the gold and silver plate, France 12 per cent., Straits Settlements 9 per cent., Hongkong, Italy and China sending small values.

Electro-Plated Ware.—As a result of depression coupled with the high import duty, imports have dropped by two-thirds since 1929/30 :—

1930/31 Rupees	1931/32 Rupees	1932/33 Rupees
3,65,525	2,99,842	2,32,016

The United Kingdom in 1931/32 supplied 94 per cent., small values being drawn from Germany and France.

Carriages and Carts and Parts Thereof.—The total imports were :—

1930/31 Rupees	1931/32 Rupees	1932/33 Rupees
11,11,926	9,00,933	5,82,859

In 1931/32 the United Kingdom contributed 41 per cent., Japan (largely jinrickshas) 30 per cent., the United States 8 per cent. and Germany 8 per cent. United Kingdom suppliers now enjoy a 10 per cent. preference on this item.

Oil Cloth and Floor Cloth.—The total imports fell from Rs.12 lakhs in 1929/30 to Rs.5½ lakhs in 1931/32 but recovered to Rs.7 lakhs last year :—

1930/31 Rupees	1931/32 Rupees	1932/33 Rupees
7,21,738	5,54,149	7,02,612

In 1931/32 the United Kingdom supplied 41 per cent., the United States 33 per cent. and Germany 11 per cent., lesser values being received from France and Czechoslovakia. United Kingdom makers now receive a preferential duty of 10 per cent.

Furniture and Cabinetware.—The trade is reduced to one-half of the 1929/30 figures :—

1930/31 Rupees	1931/32 Rupees	1932/33 Rupees
27,72,733	20,10,720	17,64,802

In 1931/32 the United Kingdom sent 41 per cent., Germany 14 per cent., the United States 9 per cent., Italy 4 per cent. and lesser

values from France, Belgium, Czechoslovakia and Japan. Bedsteads are mainly obtained from the United Kingdom with some competition from the United States. Of the wooden furniture (other than bedsteads) the United Kingdom only sends 35 per cent., the balance being shared by Germany, the United States, Czechoslovakia, Austria, Poland and Esthonia. Germany, Belgium and Italy provide most of the mouldings while the United States in normal times sends fair quantities of camp furniture. The preferential duty of 10 per cent. should enable the United Kingdom to increase its share in future.

Manures (excluding Oil Cakes).—The imports of fertilisers, after falling from Rs.99 lakhs in 1929/30 to Rs.36 lakhs in 1931/32 recovered to Rs.53 lakhs last year. The principal items were as follows :—

Description	1931/32		1932/33	
	Tons	Rs. (lakhs)	Tons	Rs. (lakhs)
Nitrate of Soda ...	2,019	3	1,240	2
Sulphate of Ammonia	16,387	19	37,612	38
Potassic Manures ...	6,594	7	3,819	5
Phosphatic Manures	5,337	3	4,566	3
Compounds... ...	2,557	3	5,007	5
Total Imports ...	34,097	36	52,651	53

In 1931/32 the United Kingdom contributed 54 per cent. including practically all the sulphate of ammonia. Germany sent 17 per cent. mainly muriate of potash. Belgium contributed 11 per cent. largely muriate of potash, superphosphate and other phosphates. Holland sent nearly half the superphosphate and Arabia provided the whole of the fish manure. There are clear signs that the Indian ryot is beginning to appreciate the value of fertilisers, largely as a result of the intensive propaganda campaign of the principal United Kingdom suppliers of sulphate of ammonia following upon years of persuasion on the part of officers of the agricultural departments. Unfortunately, at the present time, all agriculturists are suffering terribly from years of low prices. When the world values of agricultural products rise, however, and the ryot recovers his buying power, we may expect to see a material increase in the imports of all fertilisers and particularly of sulphate of ammonia and phosphates.

Matches.—The great Indian market for matches which, in the early post-war years yielded an average annual importation of 12,725,000 gross boxes valued at Rs.177 lakhs, is now supplied by the local factories of the Swedish Match Combine, which have developed under the shelter of the tariff wall. In consequence, the

imports have now been reduced to the paltry figure of Rs.52,000 (say £4,000). These meagre imports are obtained mainly from Sweden with small values from Japan and the United Kingdom. Although the United Kingdom is not interested in the export of matches, the London market has a considerable financial interest in the Indian business of the Swedish group.

Packing (Engine and Boiler) of all Kinds (excluding Asbestos).—

1930/31 Rupees	1931/32 Rupees	1932/33 Rupees
3,79,047	2,51,633	2,49,203

The imports have receded to one-half the normal volume. The market is supplied by United Kingdom manufacturers, the only competition in 1931/32 being from the United States (Rs.16,221) and Germany (Rs.9,886). A preferential duty of 10 per cent. is now conceded to United Kingdom goods.

Toilet Requisites.—This is a comprehensive heading, including all articles for toilet use not separately classified elsewhere :—

1930/31 Rupees	1931/32 Rupees	1932/33 Rupees
53,86,814	47,79,746	58,13,685

Although the trade is a quasi-luxury one, imports has been fairly well maintained, which is to be attributed to the changed outlook of Young India, of both sexes, towards Western habits and ways. In 1931/32 the United Kingdom contributed 37 per cent., the United States 32 per cent., France 8 per cent., Germany 8 per cent. and Japan 7 per cent. United States competition in widely-advertised, branded goods is very keen and is increasing as a result of strenuous salesmanship and generous treatment of distributors. As a result of the Ottawa Trade Agreement, the United Kingdom manufacturer now enjoys a preference of 10 per cent. which should help him to recover some of the trade if he will help himself to do so by displaying increased interest in the methods of distribution, uses and destination of his product.

Articles Imported by Post (not included elsewhere).—The postal traffic has shown a considerable falling-off in recent years. This is partly due to the fact that jewellery, precious stones, gold and silver thread, cigarettes and cinematograph films when imported by post and referred to Collectors of Customs for assessment are now included under their appropriate headings in the import returns. The figures for the last three years are :—

1930/31 Rs. (lakhs)	1931/32 Rs. (lakhs)	1932/33 Rs. (lakhs)
3,54	2,96	2,59

In 1931/32 the United Kingdom supplied 63 per cent., Italy 15 per cent., Switzerland 5 per cent., France 3 per cent., and Germany 3 per cent. China and Japan contributed to a lesser extent.

The cash-on-delivery parcels system with the United Kingdom, which is a great convenience to British residents in India, has naturally fallen-off during the depression. The following are the returns of C.O.D. parcels received from Great Britain and Northern Ireland in 1931/32 and 1930/31 :—

Year	Number	Value
1931-32	61,720	£217,000
1930-31	85,440	£281,000

Of these parcels, 3,370 or 5½ per cent. were returned as undeliverable in 1931/32.

RAW MATERIALS AND SEMI-MANUFACTURED ARTICLES

Coal. —There has been a steady fall in imports since 1927/28 when the figures aggregated 263,000 tons valued at Rs.58 lakhs. The Bombay and Ahmedabad Mills, which were formerly the largest consumers, are now using Bengal coal in response to appeals for reciprocal trading from their most important cloth market in Bengal. Imports of foreign coal into Karachi have also fallen to one-third. The most recent figures are :—

Countries of Consignment	1931/32		1932/33	
	Tons	Rs. (lakhs)	Tons	Rs. (lakhs)
United Kingdom ...	23,760	5	15,994	3
Union of S. Africa ...	23,241	4	13,516	2
Australia	3,805	1	3,015	1
Other Countries ...	4,813	1	2,275	—
Total ...	55,619	11	34,800	6

Portuguese East Africa has been off the market during the past two years.

Coke. —The relatively small imports of coke have been maintained :—

	1930/31	1931/32	1932/33
Rupees	6,40,572	3,05,082	3,16,592
Tons	22,866	12,144	12,678

Burma is the only market for coke as the Indian Peninsula is served from indigenous sources. In 1931/32 Natal supplied 9,844 tons valued at over Rs.2 lakhs, the United Kingdom 1,496 tons valued at Rs.62,000 and Germany 804 tons valued at Rs.26,000.

Mineral Oils.—The following are the most recent statistics. It must be borne in mind, however, that Burma supplies enormous quantities of refined petroleum products such as Kerosene, Petrol and batching oils.

Kerosene Oil.—

Countries of Consignment	1930/31 Rs. (lakhs)	1931/32 Rs. (lakhs)	1932/33 Rs. (lakhs)
Russia	56	—	14
Georgia	1,21	1,13	95
Azerbaijan	65	72	55
Persia	86	95	39
Borneo	—	20	—
Celebes and other Islands ...	61	—	8
United States	1,43	1,28	18
Other Countries	2	5	25
Total Imports	5,34	4,33	2,54

It will be noted that Russia and Russian territories (Georgia and Azerbaijan) now supply 64 per cent. of the total imports of kerosene having largely taken the place of United States and Dutch Indies' supplies. The competition of Russian oil, particularly in Western India, is becoming serious from the point of view of the British oil group.

Fuel Oils.—The imports were :—

Countries of Consignment	1930/31 Rs. (lakhs)	1931/32 Rs. (lakhs)	1932/33 Rs. (lakhs)
Persia	1,42	1,38	1,27
Straits Settlements	10	4	—
Borneo	53	50	51
Other Countries	5	12	25
Total Imports	2,10	2,04	2,03

The Anglo-Persian Oil Co., Ltd. supplies the bulk of the fuel oils, half of which are imported into Bombay.

Petrol.—There has been a remarkable drop in the imports under the Customs heading of " Petroleum, dangerous, flashing below 76 degrees Fahrenheit, including petrol, benzine and benzol," as the following totals show :—

1930/31 Rs. (lakhs)	1931/32 Rs. (lakhs)	1932/33 Rs. (lakhs)
73	105	37

In 1931/32 the imports were drawn from the United States (75 per cent.), Sumatra (10 per cent.), Dutch New Guinea (9 per cent.) and Persia (3 per cent.). The reduced imports during 1932/33 are due to the elimination, resulting from exchange difficulties, of the United States shipments as the dominant factor. Their place has been taken by increased consumption of petrol from Burma.

Batching Oils.—Batching oils for use in the jute mills of Bengal showed a recovery from the low water mark of 1931/32 :—

Countries of Consignment	1930/31 Rs. (lakhs)	1931/32 Rs. (lakhs)	1932/33 Rs. (lakhs)
Borneo (Dutch)	26	20	18
U.S.A.	46	17	31
Other Countries	—	—	1
Total	72	37	50

Other Lubricating Oils.—The United Kingdom has a direct interest in this valuable trade :—

Countries of Consignment	1930/31 Rs. (lakhs)	1931/32 Rs. (lakhs)	1932/33 Rs. (lakhs)
United Kingdom	20	27	21
U.S.A.	1,04	81	74
Other Countries	6	3	14
Total	1,30	1,11	1,09

It is somewhat disappointing that United Kingdom exporters were not able to improve their position with such a material exchange advantage vis-à-vis the United States exporter. Although the value of the United Kingdom shipments was reduced by Rs.6 lakhs, the quantities rose from 1,514,518 gallons to 1,638,948 gallons, showing the serious drop in prices. The principal United Kingdom exporters are strongly represented in India and should be assisted by the preferential duty of 2 annas per gallon, which has been in force since the 1st January, 1933. In times of depression like the present, many Indian industrialists are not prepared to pay for the higher grades of oils and attempt to economise by substituting inferior qualities. The gradual development of aviation should create an increasing market for the finest grade United Kingdom lubricants.

Salt. —Largely as a result of the heavy protective duty of 4½ annas, reduced since the 30th March, 1933, to 2½ annas, per maund

of 82 2/7 lbs. avoirdupois over and above a local excise duty of Rs.1.9.0, the imports of salt suffered a material diminution in 1931/32, but recovered during the past year.

Principal Countries of Consignment	1931/32		1932/33	
	Tons	Rs.(lakhs)	Tons	Rs.(lakhs)
United Kingdom ...	25,553	5	24,662	4
Germany	25,609	5	57,390	10
Spain	3,781	1	27,828	4
Aden and Dependencies ...	313,634	49	284,884	40
Egypt	15,305	2	39,876	6
Italian East Africa...	67,196	10	103,443	14
Other Countries ...	6	—	6,041	1
Total ...	451,084	72	544,124	79

Bengal imported 642,202 tons valued at Rs.64 lakhs and Burma received 81,619 tons valued at Rs.14 lakhs. The fall in the United Kingdom share from 81,225 tons valued at Rs.27 lakhs in 1927/28 is to be regretted as salt provided a most convenient form of ballast for steamers leaving Liverpool. It is to be feared, however, that with the present determination to protect Indian salt production, imports from overseas will gradually diminish particularly if the import duty is applied to Aden salt.

Sugar.—The Sugar Industry Protection Act, 1932, which imposed an import duty of Rs.7-4-0 per cwt. to which must be added the 25 per cent. surcharge of Rs.1-13-0 making Rs.9-1-0 per cwt. in all, dealt a fatal blow to the import trade from Java and elsewhere. India is determined to make herself, so far as possible, self-supporting as regards her colossal requirements of sugar. At the beginning of the present sugar crushing season in November 1933, there will be at least one hundred modern factories in full production and many more are projected. The effect on the imports is already marked, the total imports of sugar of all kinds having fallen from 1,003,177 tons in 1930/31 to 401,441 tons in 1932/33. It is expected that this decline will continue. The year's imports were obtained as follows :—

Sugar, 23 Dutch Standard and above.

Countries of Consignment	1930/31 Rs. (lakhs)	1931/32 Rs. (lakhs)	1932/33 Rs. (lakhs)
United Kingdom	2	5	14
Java	8,44	4,07	3,30
China	8	7	3
Other Countries	12	23	20
Total Imports	8,66	4,42	3,67

Sugar, below 23 Dutch Standard but not below 16 D.S.

Countries of Consignment	1930/31 Rs. (lakhs)	1931/32 Rs. (lakhs)	1932/33 Rs. (lakhs)
United Kingdom	*	†	‡
Java	92	29	—
China	1	2	1
Other Countries	—	—	2
Total Imports	93	31	3

* Rs.9,067 † Rs.5,803 ‡ Rs.2,416

Of the imports of Java sugar in 1931/32, Bengal took, in quantity, 41 per cent., Bombay 18 per cent., Karachi 15 per cent., Madras 19 per cent. and Burma 7 per cent.

Beet Sugar.—India's offtake of beet sugar is spasmodic, varying with the relative price of cane sugar. The imports during the past six years were as follows :—

1927-28	18,026	tons	valued at	Rs.37	lakhs
1928-29	8,404	,,	,, ,,	Rs.16	,,
1929-30	131,001	,,	,, ,,	Rs.225	,,
1930-31	78,119	,,	,, ,,	Rs.87	,,
1931-32	118,359	,,	,, ,,	Rs.125	,,
1932-33	40,690	,,	,, ,,	Rs.42	,,

The following statement shows the provenance :—

Countries of Consignment	1931/32 Rs. (lakhs)	1932/33 Rs. (lakhs)
United Kingdom	23	24
Russia	66	9
Poland	15	—
Germany	18	—
Hungary	1	—
Czechoslovakia	1	—
Other Countries	1	9
Total	1,25	42

The imports are exclusively into Bombay (8,779 tons in 1932/33) and Karachi (31,891 in 1932/33). The following table gives the other types of imported sugar :—

	1931/32 Rs. (lakhs)	1932/33 Rs. (lakhs)
Sugar, 15 Dutch Standard and below ...	2	—
Molasses	16	11

One of the greatest problems facing the growing Indian sugar industry will be disposal of molasses. The manufacture of industrial alcohol is being examined, but whatever the solution may be it is likely that the imports of molasses will shrink to very small dimensions.

APPENDIX 1

STATEMENT MADE BY SIR GEORGE SCHUSTER AT A MEETING OF THE COMMITTEE ON MONETARY AND FINANCIAL QUESTIONS ON 28th JULY, 1932.

I shall confine my remarks to a description of the actual effects on India of the recent fall in prices, leaving to Sir Henry Strakosch the task of more general treatment. It is not necessary to enter into elaborate detail for the main features of our position are similar to those already described for other countries. But there are special features in the case of India. Its mere size makes our problems more serious, while the conditions of the people and the present political situation import considerations which are not present in the case of the other Empire countries.

The position has to be considered in two broad divisions, first, the economic condition throughout the country, that is to say, the effects of what has happened on the masses of the people; secondly, the reactions on the budgetary and financial position of the Government.

India has a population of 350,000,000. Although she has achieved important industrial development she is still essentially an agricultural country. Over 70 per cent. of her vast population rely directly on the cultivation of the soil for their livelihood, mainly as small cultivators on their own account. They cling to the soil, and the laws of inheritance lead to the division of the land into ever smaller holdings. The average standard of life is, to those accustomed to Western standards, incredibly low. While the people live mainly on their own produce they require money, first, to meet their fixed charges, land revenue to the Government, canal dues in irrigated areas, in some parts rent to private landlords, and, most important of all, interest on their debts to the money-lenders, for the ordinary cultivator in India is always heavily indebted; and secondly, to purchase certain absolute necessities, such as cotton piecegoods, kerosene, salt. As regards both these requirements for money they have suffered very severely from the fall in prices. In the case of the first—their fixed money obligations—this must obviously be so, while as regards the second, the prices of the necessities which they have to buy have not fallen to anything like the same extent as those of the produce which they have to sell. Our general position in this respect is similar to that of New Zealand, as explained by Mr. Coates in his speech at the opening of this Conference. The index number, based on 100 for 1914, for Indian exports has fallen from an average level of 138 in 1928 to 78 in April, 1932, while the general index figure of internal prices in India for imported commodities had only fallen from 145 to 124. There has thus in the last three years been a fall of about 49 per cent. in the prices of exported goods as compared with the fall of 13 per cent. in the prices of imported goods. But the position of the poorest classes is really worse than these general figures indicate. It can be most clearly understood by taking typical commodities which the ordinary agriculturist has to buy and sell. Thus in April last the index figures (based on 100 for 1914) were for cereals 66, raw jute 45, hides and skins 52, cotton 89. On the other hand the figure for cotton piecegoods was 127 and for kerosene 161. The comparative stability of the internal prices for those goods is partly due to the fact that the basic prices of manufactured and semi-manufactured goods have fallen less than for primary products, and partly to the increase in customs import duties which the necessities of the financial crisis have forced the Government to impose.

The figures sufficiently indicate how difficult the position of the small cultivator has become. For the prices which he is now realising for his " money crops " are in many cases only about half the pre-war prices, while

his fixed charges have probably in most cases increased and the cost of his necessary purchases is much higher. The margin of cash which he can realise is thus totally inadequate to meet his needs. In these circumstances he is forced either to restrict his own consumption of the foodstuffs which he produces, or to part with any property which he may have (cash savings, gold and silver articles, etc.), or to get more deeply into debt. There is clear evidence that recourse to all three of these methods has been general during the past eighteen months. The Provincial Governments have done their utmost to meet the situation by remissions of land revenue, canal dues, etc., and by forcing reductions of rent. But their own financial difficulties impose limits on their powers in this direction, while even a total remission of their levies would not fill the gap.

I may turn now to the effects on the budgetary and financial position.

The economic depression has caused a drop of unparalleled magnitude in India's Trade and consequently in Government revenue. The average value of India's post-war trade in merchandise (i.e. for the ten years ending March 31, 1930) was, exports, 325 crores (about £243½ million sterling) and imports, 242 crores (about £181½ million sterling) showing a favourable balance of 83 crores (£62 million sterling). For 1931-2, however, the figures had dropped to less than one half, namely, exports, 160 crores (£120 million sterling), imports, 125 crores (£92 million sterling), favourable balance, 45 crores (£28 million sterling), while, as I shall explain later the figures up-to-date for the current year are much worse. The two significant facts here are, first, the drop in the total values, and secondly, the drop in the favourable balance. It is the former which mainly affects the budgetary position with which I will deal first. The drop in values indicates that custom revenues on which we rely for two-thirds of our tax revenue, would without increasing the rates of the duties have been halved. The general falling-off in trade is equally affecting income-tax receipts, while railway revenue has dropped in a manner which is causing most serious embarrassment to the Government's finances. I may indicate the magnitude of our railway interests by saying that the Government of India had 752 crores, or £564 million sterling, invested in its railways, and that in a normal year the gross traffic receipts from this system should be about 110 crores, or £83 million sterling, annually. The receipts will probably be less than 80 crores, or £60 million sterling, for the current year.

To meet the situation of which I have just given the salient features, the Government has had to take drastic measures both to restrict expenditure and to increase taxation. But the scope for economies in the case of the Government of India is limited. The main charges of the Central Budget are for Debt Services and Defence. Out of a total budgetary expenditure in 1929-30 of about £100 million sterling, the cost of ordinary civil administration was only about £9 million sterling. Army expenditure accounted for about half the balance. The case of military expenditure is particularly worth noting, because it affords a good illustration of the difficulty of adjusting post-war standards to an economic level which has fallen much lower than the pre-war level. Pre-war military expenditure was 29 crores, say £21 million sterling, but the post-war military budget four years ago had been stabilised at 55 crores, or £41½ million sterling, nearly twice the pre-war figure. And yet we now maintain 16,000 less British troops in India than we had before the war. The difference is mainly accounted for by the higher standard of efficiency which the war proved it necessary to maintain, to higher rates of pay and to other special features, such as the addition of war pensions. We have for 1932-3 reduced the figure to 46½ crores, or about £34½ million sterling, including cuts in pay. We cannot get it appreciably lower without reducing fighting troops on a large scale. The dangers of such a course just now are obvious. On the civil side we have made severe economies but this had meant cutting down administrative services and Public Works expenditure to a low level which cannot safely be maintained. The scope for economies being thus limited it has, in order to fill the gap, been necessary to impose very heavy increases in taxation. To explain shortly what has been done I may say that,

while our normal tax revenue has since the war averaged about 75 crores (£56 million sterling), I have been forced during the last two years to impose new taxes calculated to yield 34 crores (£25½ million sterling), an increase of nearly 50 per cent. Yet, on present indications even this may prove insufficient if the present low level of prices continues.

The figures which I have given indicate how great are the budgetary difficulties, but the intrinsic position is not fully revealed by these figures. In order to explain this one must turn to the second point, the balance of trade. Before the war, India could, taking the average of the ten pre-war year figures, rely on a favourable balance of exports over imports of merchandise of about 72 crores (£54 million sterling). I have already given figures showing that for the ten post-war years to the end of March, 1930, the average favourable balance had increased to 83 crores (£61 million sterling), and that for 1931-32 the balance had been reduced to 34 crores (£25½ million sterling). But the position since the close of the last financial year has got steadily worse. The trade figures for the first three months of the current year, April, May and June, show total exports of merchandise 30 crores (£22½ million sterling) and imports 37 crores (£27¾ million sterling)—an unfavourable balance of 7 crores. Thus, if we continue at this rate for the rest of the year we shall have an unfavourable balance of 28 crores (£21 million sterling) compared with a normal favourable balance both for the pre-war and post-war periods of 70 to 80 crores (£54 million to £61 million sterling). But India as a debtor country needs to maintain a large favourable balance of trade in merchandise. The Government in order to meet its essential obligations has to find about £30 million sterling annually, that is to say, 40 crores, while the figures indicate that, as an average, a further margin of 10 crores (£7½ million) at least is required to meet other items in the adjustment of payments on private accounts. Therefore, apart from movements of capital or the country's requirements for the purchase of precious metals, India in order to maintain an even position requires a favourable trade balance of at least 50 crores (£37½ million) annually. In the past, as I have shown, this minimum has in fact been exceeded by 20 to 30 crores; and this margin has been utilised by India for the import of gold and silver, which according to age-long tradition the Indian people buy. Yet we are now faced with a heavy unfavourable balance of trade—a feature which, save only in the totally exceptional disturbances just after the war, India has never experienced before. It will be asked how in these circumstances our exchange rates are being maintained. The answer is that since last September India, instead of importing gold and silver, has practically stopped buying silver and has been *exporting* gold on a large scale. Actually in six months, October, 1931, to March, 1932, India exported gold to the value of 57 crores, or on the basis of the full gold parity of sterling to the value of about £32 millions. This process is still continuing at the rate of about 4 crores (£3 million sterling) per month. This is the key factor which must be remembered in assessing the realities of the Indian economic situation. According to the figures for the first three months of this year India is only exporting merchandise at the rate of 120 crores (£90 million sterling) per annum, while she needs, as I have already shown, a favourable trade balance of at least 50 crores (£37½ millions) in order to maintain an even keel. Therefore, if it were not for the export of gold she could only afford to be importing at the rate of 70 crores (£52½ millions) per annum. A reduction of imports to such a figure would create a completely impossible budgetary position. If on the other hand imports were not so reduced she would be unable to meet her external obligations except by raising fresh loans, a course of which the dangers and disadvantages are obvious.

In what I have already said I have dealt with the general economic position in the country and with the budgetary and currency position of the Government. But there is another side of the Government's financial activities which has a very important bearing on the general economic position of the country. I refer to the Government's programme of capital expenditure on public works generally, but especially on railway construction and irrigation works. The

grave budgetary difficulties which I have described combined with the difficulty of maintaining financial and currency stability in the face of the slump in export trade have forced the Government to cut down most drastically the whole of its programme of capital expenditure. Financial policy as regards the railways clearly illustrates this. In the three years from the 1st April, 1927, to the 31st March, 1930, expenditure on new construction and Open Line works on the railways, including the expenditure from the Depreciation Fund, averaged £31¼ million sterling. For the financial year 1932-33 this expenditure has been reduced to a total of £7¼ million sterling. This reduction in construction work seriously affects the economic position in India. It must also seriously affect the position in England, for a large portion of the railway expenditure would have taken the form of the purchase of locomotives, etc., from England. These figures are no more than an illustration in one important field of the vicious circle of depression into which a country is forced when its Government has to undertake a drastic policy of economy and deflation. As a further detail illustrating this I may quote the fact that, when the programme of the development of the Indian iron and steel industry was fixed five years ago, it was worked out on the assumption that the Government requirements of rails from the Tata Iron and Steel Works would amount to 200,000 tons per annum. The actual orders for the current year are only 38,000 tons. It is obvious how such subnormality in activity must re-act on the economic position throughout the country.

In what I have said above I have dealt only with the position of the Central Government of India. But the position of the various Provincial Governments is even more difficult. I need not enlarge upon this for the effects in this field are precisely similar to those of the Central Government which I have already outlined.

While the difficulties of effective action towards producing a rise in prices are fully recognised, the situation which I have attempted to describe seems to us to justify the consideration of any course which offers a hope, however slight, of ameliorating the position.

The discussion of the exact lines which such a course might follow can be left to a later stage, but I should like to conclude by shortly summarising India's needs, and stating what is likely to happen if these cannot be met.

We need above everything a substantial and early rise in prices. We recognise that a rise in world prices to be brought about by International co-operation is the ultimate ideal, but, short of this, we believe that a rise in sterling prices extending throughout the sterling area would not only bring us great immediate benefits, but would probably by its own stimulus and example lead to a general movement throughout the world. If we could be assured by declaration from the British Government that their policy would be directed to raising sterling prices and to maintaining monetary and credit conditions appropriate to that end, we should feel justified in adopting a policy which would itself contribute largely to a general improvement in trade.

APPENDIX II

TOTAL OVERSEAS TRADE OF INDIA WITH PRINCIPAL COUNTRIES, SHOWING NET BALANCES.

	1913-14			1931-32			1932-33		
	Exports	Imports	Net Imports (−) or Exports (+)	Exports	Imports	Net Imports (−) or Exports (+)	Exports	Imports	Net Imports (−) or Exports (+)
	Rs. (crores)	Rs. (crores)	Rs. (crores)	Rs. (crores)	Rs. (crores)	Rs. (crores)	Rs. (crores)	Rs. (crores)	Rs. (crores)
United Kingdom	58	117	− 59	45	45	—	38	49	−11
Other British Possessions ...	36	11	+ 25	27	12	+15	24	10	+14
TOTAL BRITISH EMPIRE	94	128	− 34	72	57	+15	62	59	+ 3
Europe	85	30	+ 55	37	28	+ 9	32	29	+ 3
U.S.A.	22	5	+ 17	14	13	+ 1	10	11	− 1
Japan	23	5	+ 18	14	13	+ 1	14	20	− 6
OTHER FOREIGN COUNTRIES	25	15	+ 10	24	15	+ 9	18	13	+ 5
TOTAL FOREIGN COUNTRIES	155	55	+100	89	69	+20	74	73	+ 1
GRAND TOTAL	249	183	+ 66	161	126	+35	136	132	+ 4

APPENDIX III

SHOWING THE POSITION OF THE PRINCIPAL SUPPLIERS IN CERTAIN CHIEF ITEMS OF IMPORTS

	Iron and Steel			Machinery			Hardware		
	1913-14	1931-32	1932-33	1913-14	1931-32	1932-33	1913-14	1931-32	1932-33
	Per cent.	Per cent.	Per cent.	Per cent.	Per cent.	Per cent.	Per cent.	Per cent.	Per cent.
United Kingdom ...	69.9	53.8	51.1	89.8	70.8	74.1	57.2	36.8	30.6
U.S.A. ...	2.6	2.2	1.2	3.3	11.1	7.7	9.7	10.3	5.6
Germany ...	14.5	7.3	8.6	5.6	10.3	9.3	18.2	29.1	36.1
Belgium ...	11.5	24.2	23.2	—	2.5	3.7	—	1.1	1.1
Japan ...	—	.7	2.6	—	.4	.4	1.5	6.1	10.1
France and Luxemburg	—	5.4	4.8	—	—	.3	—	.8	1.1
Percentage of total trade represented by countries shown ...	98.5	93.6	91.5	98.7	95.1	95.5	86.6	84.2	84.6
Total value of Trade Rs.(lakhs)	16,01	6,32	5,30	7,76	10,92	10,54	3,95	2,61	2,99

	Motor Cars, Motor Cycles, etc.			Instruments		
	1913-14	1931-32	1932-33	1913-14	1931-32	1932-33
	Per cent.	Per cent.	Per cent.	Per cent.	Per cent.	Per cent.
United Kingdom	71.3	31.1	47.6	75.3	49.6	50.5
U.S.A.	15.1	48.4	36.5	8.0	17.0	13.9
Germany	—	2.8	3.0	8.2	16.5	16.9
Netherlands	—	—	.2	—	3.8	3.1
Belgium	4.5	.3	.3	—	1.9	1.6
Japan	—	—	.2	.6	2.2	5.9
France	4.5	2.4	1.2	—	1.6	.7
Italy	—	4.8	3.2	2.2	1.6	1.9
Canada	—	8.3	5.7	—	—	—
Percentage of total trade represented by countries shown ...	95.4	98.1	97.9	94.3	94.2	94.5
Total Value of Trade Rs.(lakhs) ...	1,53	2,89	2,43	1,82	3,69	3,85

APPENDIX III.—*continued*

	Cotton Manufactures			Liquors			Paper		
	1913-14	1931-32	1932-33	1913-14	1931-32	1932-33	1913-14	1931-32	1932-33
	Per cent.	Per cent.	Per cent.	Per cent.	Per cent.	Per cent.	Per cent.	Per cent.	Per cent.
United Kingdom ...	90.1	51.6	53.0	62.9	60.8	62.1	56.0	30.4	27.8
U.S.A. ...	.4	1.6	1.3	2.7	6.1	6.9	—	4.4	2.8
Germany ...	2.1	.4	.3	10.7	7.8	7.6	17.0	10.8	10.5
France ...	—	.3	.3	18.8	11.8	11.6	—	.4	.6
Netherlands	1.6	1.5	.8	—	3.5	3.0	2.5	6.4	4.9
Belgium ...	—	.2	.1	—	—	—	—	—	—
Japan ...	1.8	35.5	37.9	—	—	—	—	—	—
Switzerland	—	1.3	1.5	—	—	—	—	—	—
Norway ...	—	—	—	—	—	—	5.0	10.4	14.2
*China ...	.1	5.3	3.3	—	—	—	—	—	—
Italy ...	1.5	1.7	.9	—	—	—	—	—	—
Sweden ...	—	—	—	—	—	—	3.1	11.2	14.5
Austria ...	—	—	—	—	—	—	8.3	14.4	10.1
Percentage of total trade represented by countries shown ...	97.6	99.4	99.4	95.1	90.0	91.2	91.9	88.4	85.4
Total Value of Trade Rs. (lakhs)	66,30	19,15	26,83	2,24	2,27	2,26	1,59	2,50	2,86

* Includes Hongkong and Macao.

APPENDIX IV

VALUE OF TRADE WITH PRINCIPAL COUNTRIES, DISTINGUISHING PRINCIPAL ARTICLES.

TABLE A
In thousands of Rupees.

Articles	Pre-War average	1930-31	1931-32	1932-33
UNITED KINGDOM				
Imports therefrom—				
Animals, living	5,02	7,45	9,14	6,77
Apparel	59,29	33,57	23,58	23,71
Arms, ammunition, etc. ...	30,60	44,79	57,00	37,09
Artificial silk yarn	—	11,98	10,58	14,35
Asbestos	—	17,81	11,16	9,46
Belting for machinery ...	36,26	46,34	32,51	35,50
Bobbins	—	34,49	23,60	19,16
Books and printed matter ...	41,05	51,51	43,59	38,96
Boots and shoes	51,33	11,15	6,61	6,21
Building materials	59,89	48,26	34,19	25,64
Carriages and carts	19,11	5,73	3,74	3,45
Chemicals	69,55	141,08	1,40,78	1,40,08
China clay	—	7,06	9,05	8,04
Coal and coke	41,33	6,36	6,17	3,94
Cordage and rope	4,39	4,96	2,88	2,00
Cotton—				
Raw	58,67	27,42	4,16	4,60
Twist and yarn	3,35,18	1,26,57	1,21,82	1,31,80
Piecegoods—				
Grey	20,73,55	2,81,28	95,54	1,75,95
White	10,87,38	5,22,94	4,02,02	5,26,79
Coloured	11,29,72	4,47,56	2,85,36	4,87,63
Other manufactures ...	1,40,25	85,97	83,01	99,78
Cutlery	10,53	8,30	5,87	6,51
Cycles and parts	29,40	47,62	43,33	51,96
Drugs and medicines ...	54,03	64,37	66,67	61,16
Dyeing & tanning substances	6,90	16,68	25,31	33,45
Earthenware and porcelain ...	30,50	18,00	14,30	12,26
Flax manufactures	28,83	20,67	16,79	16,01
Furniture	10,84	11,75	8,39	6,26
Glass and glassware	22,26	16,32	13,21	12,01
Haberdashery and millinery...	61,21	18,46	13,51	13,96
Hardware	1,88,61	1,31,49	96,16	91,44
Instruments, apparatus, etc.	1,04,88	2,55,04	1,83,26	1,94,31
Ivory	11,33	5,78	5,56	4,66
Jewellery, etc.	14,51	36,77	16,59	32,91
Jute manufactures	10,09	3,24	1,55	1,90
Leather, including hides, tanned, etc....	38,59	25,49	25,07	23,93

APPENDIX IV.—*continued*

TABLE A—*continued*

In thousands of Rupees

Articles	Pre-War average	1930-31	1931-32	1932-33
Liquors—				
Ale, beer and porter ...	45,64	63,69	48,81	49,73
Spirit	69,47	1,25,13	83,08	84,44
Wines	13,62	8,47	5,74	5,72
Machinery and millwork ...	4,97,69	10,72,18	7,73,10	7,81,22
Manures	1,68	35,05	19,74	39,07
Metals—				
Aluminium...	5,38	21,32	7,51	9,45
Brass	6,13	28,17	33,08	55,56
Copper	1,67,45	29,55	28,69	29,75
Iron	28,88	6,28	1,96	2,81
Iron or steel	6,96,13	5,13,34	3,11,52	2,42,05
Lead	13,99	3,42	2,96	2,99
Steel	42,02	50,23	26,19	25,96
Zinc	14,85	5,25	3,63	8,28
Others	27,43	20,91	17,67	25,24
Motor cars and motor cycles, etc.	74,50	93,87	91,17	1,15,68
Oils, mineral	22,31	25,57	29,22	27,37
Oils, vegetable, animal, etc.	17,76	11,87	10,59	10,54
Packing, engine and boiler ...	4,98	3,36	2,18	2,25
Paints and painters' materials	56,00	74,28	58,95	59,66
Paper and pasteboard ...	73,44	89,36	75,64	79,83
Piecegoods of cotton and artificial silk	—	12,74	9,61	21,85
Pitch and tar	8,72	1,49	1,96	1,75
Polishes	9,48	19,58	18,15	18,30
Precious stones	14	1,94	2,05	1,93
Printing materials	14,70	16,99	14,46	14,25
Provisions	1,34,15	1,94,36	1,51,20	1,39,67
Railway plant, etc.	5,54,48	—	—	—
Rubber manufactures, including tyres, etc.	16,45	73,60	69,34	80,16
Salt	23,44	8,86	5,66	4,52
Ships, parts of	18,00	12,39	9,29	4,13
Silk manufactures, including yarn	19,07	6,64	6,98	11,71
Soap	56,52	97,83	75,05	69,59
Stationery	41,44	43,76	35,95	32,84
Sugar	25,37	10,14	28,17	38,13
Tallow and stearine	10,43	4,45	1,95	1,76
Tea-chests	41,32	47,77	36,95	34,37
Tobacco	51,83	1,29,98	61,54	34,44
Toilet requisites	10,35	19,37	18,13	20,73
Toys and requisites for games	16,75	12,20	10,65	10,46
Umbrellas	24,71	5,73	6,00	3,68
Woollen manufactures, including yarn	1,85,24	67,32	40,53	71,78
Other articles	1,50,99	4,18,95	3,04,33	2,42,38
Total	91,58,01	61,28,65	44,81,44	48,79,67

APPENDIX IV.—*continued*

TABLE B

In thousands of Rupees

Articles	Pre-War average	1930-31	1931-32	1932-33
JAPAN				
Imports therefrom—				
Ale, beer and porter	3	4,60	3,83	4,41
Apparel	9,17	18,50	20,76	25,48
Artificial silk	—	1,54,11	2,16,26	2,70,63
Bobbins	—	4,92	3,64	4,75
Boots and shoes	16	67,16	48,72	31,57
Brass, bronze, etc.	7	24,70	16,97	40,83
Brushes and brooms	48	1,10	90	1,99
Buttons of all sorts	—	5,36	4,24	7,24
Camphor	11,48	9,33	8,49	11,77
Carriages	11	3,30	2,75	68
Cement	1	12,85	9,47	8,10
Chemicals	93	4,37	6,37	13,26
Coal and coke	7,02	19	16	3
Copper...	27,99	53	3,55	6,72
Cotton—				
Raw	9	5,28	2,63	85
Hosiery	65,23	76,51	41,59	61,23
Piecegoods	6,10	5,92,90	4,45,20	7,85,39
Yarn	6,16	83,56	82,82	1,60,71
Other manufactures ...	2,12	12,79	9,40	11,59
Drugs and medicines (other than camphor)	1,72	6,71	9,09	19,31
Earthenware and porcelain ...	4,23	21,31	16,74	31,59
Furniture and cabinetware ...	71	1,90	57	1,08
Glass and glassware—				
Bangles	5	19,84	15,08	22,33
Beads and false pearls ...	7,61	5,06	3,37	5,45
Bottles and phials	1,00	11,92	8,49	11,95
Funnels, globes, etc. ...	58	1,35	69	98
Tableware	1,41	5,74	3,49	4,18
Others	3,35	10,81	10,90	20,56
Haberdashery and millinery...	10,88	13,36	10,42	18,09
Hardware	3,59	20,91	15,77	30,11
Instruments	85	9,65	8,47	22,99
Iron or steel	—	5,14	3,76	13,89
Machinery and millwork ...	63	4,85	3,74	4,14
Matches	28,40	16	—	5
Paints and painters' materials	—	4,30	4,13	7,45
Paper and pasteboard ...	55	11,08	9,78	15,92
Provisions and oilman's stores	1,57	2,09	1,52	3,61
Rubber manufactures ...	—	2,19	3,04	13,04
Silk, raw	1,15	65	1,59	4,71
Silk manufactures	1,31,45	89,01	95,99	2,01,89
Spices, ginger	3,40	61	19	44
Stationery (excluding paper)	2,17	4,74	4,74	9,47
Tea-chests	87	76	1,04	96
Toilet requisites	1,31	3,33	3,39	8,14

APPENDIX IV.—*continued*

TABLE B—*continued*

In thousands of Rupees

Articles	Pre-war average	1930-31	1931-32	1932-33
Toys and requisites for games	3,16	13,10	9,66	22,86
Umbrellas & umbrella fittings	4,91	8,69	9,88	14,62
Wood-timber	32	24,06	9,45	2,37
Wood-manufactures	71	6,34	3,27	5,05
Woollen manufactures ...	8	3,19	1,52	10,58
Other articles	10,54	56,70	36,45	72,70
Total	3,64,35	14,51,10	13,33,97	20,47,74

APPENDIX IV.—*continued*

TABLE C

In thousands of Rupees

Articles	Pre-war average	1930-31	1931-32	1932-33
UNITED STATES				
Imports therefrom—				
Aluminium	4,26	42,11	3,40	55
Apparel	33	10,85	10,21	7,30
Arms	80	2,89	1,34	86
Belting for machinery	1,11	9,41	10,48	8,43
Boots and shoes	54	1,53	19	10
Building materials	88	14,23	7,17	11,13
Carriages	72	26	83	20
Chemicals	22	13,48	11,90	14,73
Clocks and watches	3,82	2,97	1,22	78
Copper	—	17,90	7,51	4,44
Cotton—				
Raw	27,72	83,15	2,23,57	3,84,58
Piecegoods	26,44	24,42	30,50	32,60
Drugs and medicines	4,18	22,22	19,56	20,83
Dyeing substances	—	13,77	10,99	8,36
Furniture	1,44	2,83	1,98	71
Glassware	1,17	3,53	1,29	53
Hardware	24,72	44,93	27,17	16,52
Instruments	5,86	78,71	63,39	53,35
Iron and steel	48,56	49,73	14,19	6,22
Leather	—	14,25	10,37	10,96
Machinery	24,56	1,64,15	1,22,11	81,12
Manures	—	5,72	37	46
Motor cars, etc.	8,49	2,41,16	1,07,35	24,76
Oils, mineral	2,19,66	3,67,94	3,15,64	1,35,54
Paper and pasteboard	1,21	12,98	11,35	8,09
Provisions	3,80	40,42	22,10	18,51
Railway plant	54	—	—	—
Rubber	16	85,85	83,39	52,38
Spirit	5,34	16,46	14,09	15,63
Stationery	2,05	4,49	3,00	2,32
Sugar	18	48	64	6
Tobacco	5,90	14,29	25,46	57,44
Toilet requisites	2,22	17,48	15,33	17,60
Wood and timber	6,56	7,26	3,15	27,48
Other articles	15,59	82,87	1,02,38	1,24,57
Total	4,49,03	15,14,72	12,83,62	11,25,19

APPENDIX IV.—*continued*

TABLE D

In thousands of Rupees

Articles	Pre-war average	1930-31	1931-32	1932-33
GERMANY				
Imports therefrom—				
Apparel	14,87	12,53	6,90	8,58
Bobbins	—	1,96	2,74	3,79
Building materials	6,72	2,55	2,17	1,62
Buttons	—	3,23	2,70	4,23
Carriages	2,81	1,21	77	25
Chemicals	10,62	47,88	46,55	40,48
Clocks and watches	1,36	5,30	4,31	3,54
Cutlery	7,95	15,72	13,23	14,34
Cycles	1,75	11,28	8,23	7,89
Drugs and medicines ...	6,19	48,13	42,77	43,34
Dyeing substances	87,40	1,61,06	1,71,36	1,37,17
Glassware	23,69	23,50	20,34	17,72
Hardware	57,24	1,07,72	75,85	1,07,98
Instruments	13,57	75,24	61,42	65,32
Liquors	19,41	30,73	18,43	17,24
Machinery	30,27	1,18,06	1,12,27	98,06
Manures	2,20	7,56	6,15	2,51
Metals—				
Aluminium	12,16	13,21	6,23	3,92
Brass	1,56	98,76	70,44	80,03
Copper	93,41	28,60	28,86	67,24
Iron	2,86	1,09	1,56	4
Iron or steel	86,97	69,95	41,08	41,75
Steel	65,19	4,34	2,17	3,62
Zinc	3,24	3,77	2,89	3,36
Motor cars, etc.	5,64	12,36	4,45	2,09
Oils	19,57	12,45	8,49	15,91
Paints & painters' materials	5,58	11,76	9,35	11,15
Paper and pasteboard ...	21,82	27,68	27,49	30,12
Paper-making materials ...	1,61	2,77	3,42	9
Printing materials	1,02	5,62	4,00	4,47
Provisions	5,50	9,66	6,07	2,80
Railway plant	12,19	—	—	—
Rubber manufactures ...	3,82	29,47	19,39	14,72
Salt	9,46	20,25	4,82	9,70
Stationery	5,04	19,49	16,60	20,82
Sugar	3,84	15,04	17,83	33
Textiles—				
Artificial silk	—	9,21	8,92	11,69
Cotton manufactures ...	83,71	11,01	8,25	8,92
Haberdashery	22,10	15,55	11,05	13,16
Silk manufactures	16,81	6,66	4,21	5,72
Wool manufactures ...	90,62	31,78	19,99	24,36
Toys	11,10	8,29	5,43	3,84
Umbrellas	7,66	14,36	11,18	7,23
Other articles	57,03	81,63	79,48	77,58
Total	9,35,56	12,38,42	10,19,84	10,38,72

APPENDIX IV.—*continued*

TABLE E

In thousands of Rupees

Articles	Pre-war average	1930-31	1931-32	1932-33
ITALY				
Imports therefrom—				
Apparel	6,98	5,72	3,64	3,14
Art, works of	45	1,51	83	1,13
Building materials	2,57	7,26	5,20	5,24
Buttons	—	3,05	3,34	5,64
Chemicals	4,72	19,23	15,06	15,14
Dyeing & tanning substances	1,49	8,34	5,28	7,94
Fruits and vegetables ...	8,48	28,33	16,42	19,19
Glassware	4,26	2,73	2,49	2,17
Instruments	1,70	9,66	6,10	7,34
Liquors	78	2,81	1,69	2,10
Machinery	1,44	15,24	13,33	7,34
Metals—				
Aluminium	9	24	39	22
Brass	1,09	39	1,97	40
German silver	—	3,85	2,76	5,00
Quicksilver	—	5,11	6,53	8,62
Others	67	3,76	1,94	1,45
Motor Cars, etc.	66	19,61	10,63	4,80
Paper and pasteboard ...	79	3,12	3,53	3,75
Rubber manufactures ...	13	16,47	16,77	15,03
Stone and Marble	2,48	3,10	2,62	4,06
Sugar	23	—	—	—
Textiles—				
Artificial silk yarn	—	50,60	41,29	70,04
Cotton—				
Raw	11	6,71	4	87
Twist and yarn	4,98	77	1,23	5
Manufactures	45,22	36,76	31,89	22,06
Haberdashery and millinery	4,32	9,18	8,52	9,82
Silk manufactures	19,83	16,64	19,56	24,38
Piecegoods of cotton and artificial silk	—	19,64	16,04	21,17
Wool manufactures ...	4,07	62,23	32,02	74,98
Other articles	27,30	86,46	87,66	51,36
Total	1,44,84	4,50,52	3,58,77	3,94,83

APPENDIX IV.—*continued*

TABLE F

In thousands of Rupees

Articles	Pre-war average	1930-31	1931-32	1932-33
BELGIUM				
Imports therefrom—				
Artificial silk	—	2,57	1,73	1,93
Arms, etc.	26	1,66	3,02	3,65
Building materials	4,04	4,84	3,32	1,94
Cotton manufactures... ...	42,12	6,15	3,57	3,29
Dyeing & tanning substances	10,82	75	2,00	1,04
Earthenware and porcelain ...	3,45	1,26	36	54
Glass and glassware	16,92	17,53	12,69	15,03
Hardware	5,58	3,21	2,97	3,49
Liquors	1,50	2,06	1,40	1,15
Machinery and millwork ...	1,76	14,39	26,78	38,62
Manures	75	3,44	4,07	2,84
Metals—				
Brass	37	1,45	68	61
Copper	3,54	4,59	1,80	—
Iron	15,95	1,98	84	2,13
Iron or steel	45,46	2,18,14	1,18,67	93,87
Steel	63,54	51,01	33,90	27,17
Motor cars, etc.	4,15	1,21	68	56
Paints & painters' materials	2,08	4,85	3,25	3,36
Paper and pasteboard ...	5,00	5,42	4,51	3,99
Precious stones	1	39,50	28,65	68,71
Provisions	1,41	12,56	4,36	3,72
Railway plant, etc.	4,28	—	—	—
Sugar	29	76	47	2,66
Woollen manufactures ...	2,11	4,33	2,02	6,87
Other articles	40,61	63,26	39,83	54,67
Total	2,76,00	4,66,92	3,01,57	3,41,84

TABLE G

In thousands of Rupees

Articles	Pre-war average	1930-31	1931-32	1932-33
RUSSIA				
Imports therefrom—				
Beet sugar	(a)	44,77	86,85	8,89
Mineral Oils	19,86	56,04	—	13,86
Tea-chests	—	43	32	23
Other articles	2,42	2,51	7,45	13,55
Total	22,28	1,03,75	94,62	36,53

(a) Separately recorded from 1923-24

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DEPARTMENT OF OVERSEAS TRADE

Conditions and Prospects of United Kingdom Trade IN INDIA

1933-1934

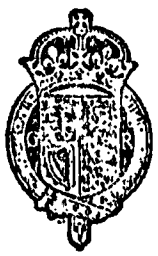
REPORT

BY

SIR THOMAS M. AINSCOUGH, C.B.E.

H.M. Senior Trade Commissioner in India and Ceylon

(The previous Report covered the year 1932-33)



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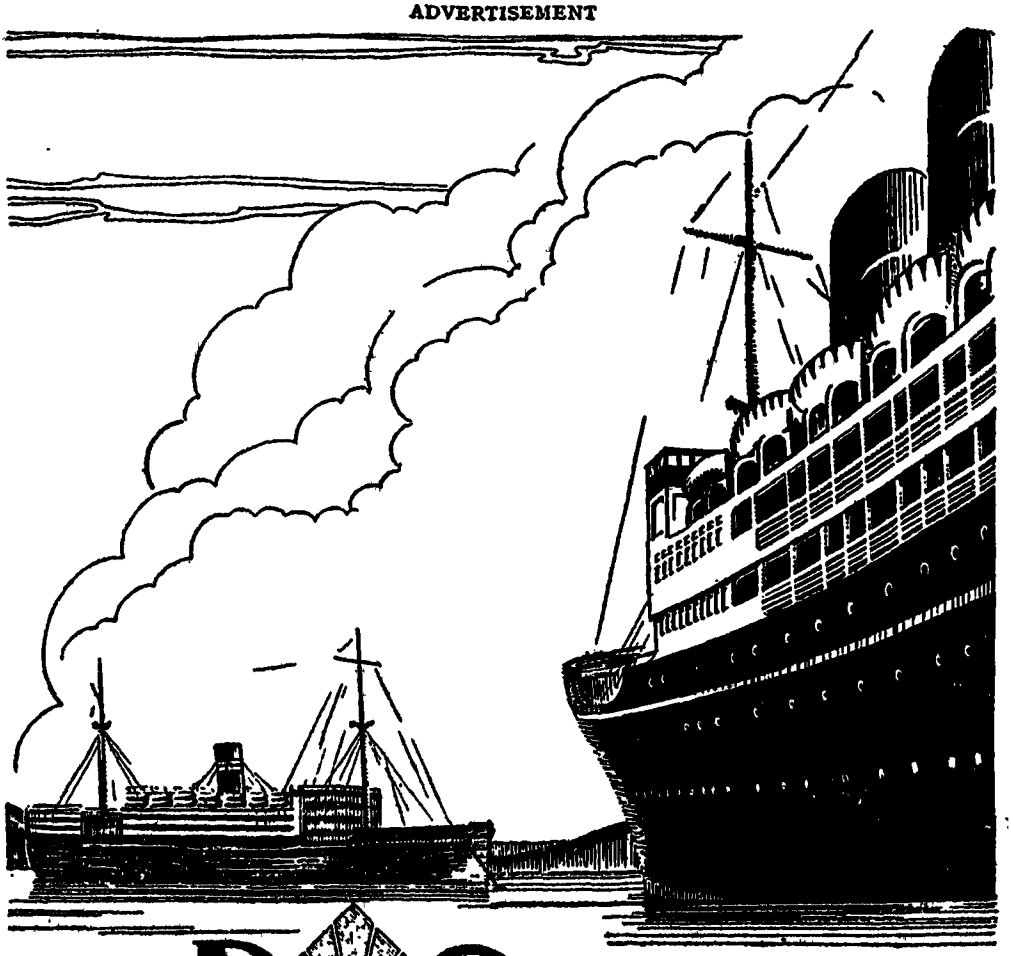

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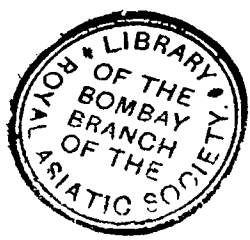

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COVERING DESPATCH

To the Right Honourable Walter Runciman, M.P.,
President of the Board of Trade.

Simla.
11th September, 1934.

SIR,

I have the honour to forward for your information a Report on the Conditions and Prospects of United Kingdom Trade in India during the Indian fiscal year 1933-34 revised to the 31st August, 1934.

The slight improvement in the United Kingdom share of India's import trade, which was recorded last year, has continued and gathered strength. Although total imports suffered a further severe contraction, the main burden of the reduction was borne by foreign countries and the United Kingdom percentage again rose, from 36·8 to 41·2. It is significant that the improvement has been in the miscellaneous trades and not in the three staple items of cotton textiles, machinery and iron and steel, which still fail to reflect any revival. This must in some measure be due to the effects of the Ottawa preferences. The beneficial results of the preferential duties would have been still more marked but for the intensified competition from Japan at prices which made competition impossible.

The period under review has been an eventful one as it has witnessed the passing of the Indian Textile and Iron and Steel Protection Acts embodying substantial and valuable differential duties in favour of the United Kingdom. Moreover, the visits of the delegations from the United Kingdom Textile and Iron and Steel Industries and the conclusion of the Clare Lees-Mody Pact have, it is hoped, permanently established the policy of industrial co-operation between the two countries; such a policy is calculated to have such far-reaching effects not only in the economic sphere but also in the political arena by removing the sources of economic rivalry and ill-feeling and by promoting a spirit of community of interest between the two peoples. Similarly, the signing of the Indo-Japanese Treaty has placed the commercial relations of the two countries on a sounder footing and will, it is anticipated, also confer certain advantages on United Kingdom trade. All these matters are treated at length in the pages which follow.

Once again I have pleasure in acknowledging my indebtedness to the officials of the Commerce, Industries and Finance Departments of the Government of India for their unfailing support and assistance during a difficult year. Special thanks are due to the Director-General of Commercial Intelligence and Statistics and his staff, who have prepared many of the tables embodied in the report, to the Chief Controller and staff of the Indian Stores Department and, above all, to the Collectors of Customs for their valuable help and co-operation which have always been so willingly rendered.

I have the honour to be,
Sir,
Your most obedient servant,

THOMAS M. AINSCOUGH,
H.M. Senior Trade Commissioner in India.

PREFATORY TABLES

NOTE.—*The author desires to express his indebtedness to the Director-General of Commercial Intelligence and Statistics for the particulars given in these tables.*

I.—TRADE DISTRIBUTION: PRINCIPAL ARTICLES.

TABLE SHOWING VARIATIONS IN THE SHARES OF THE PRINCIPAL ARTICLES IN THE IMPORT AND EXPORT TRADE OF BRITISH INDIA DURING THE LAST THREE YEARS, AS COMPARED WITH AVERAGES OF THE PRE-WAR AND WAR PERIODS.

IMPORTS (in percentages).

(Sea borne: exclusive of treasure and of imports on Government account.)

	1909–14 Average.	1914–19 Average.	1931–32.	1932–33.	1933–34
Cotton manufactures	36	35	15	20	15
Iron and Steel	7	6	5	4	5
Machinery	4	4	9	8	11
Sugar	9	10	5	3	2
Hardware	2	2	2	2	3
Mineral Oil	3	3	7	5	5
Silk	3	2	2	2	2
Other articles	36	38	55	56	57

EXPORTS (in percentages).

(Sea borne: exclusive of treasure and of exports on Government account.)

	1909–14 Average.	1914–19 Average.	1931–32.	1932–33.	1933–34.
Jute, raw and manufactures ...	19	25	21	24	22
Cotton, raw and manufactures	15	16	18	18	21
Food grains	21	17	13	12	8
Seeds	11	6	9	9	9
Tea	6	8	12	13	13
Hides and skins	7	8	2	2	3
Other articles	21	20	25	22	24

II.—TRADE DISTRIBUTION: PRINCIPAL COUNTRIES.

TABLE SHOWING VARIATIONS IN THE SHARES OF THE PRINCIPAL COUNTRIES IN THE IMPORT AND EXPORT TRADE OF BRITISH INDIA DURING THE LAST THREE YEARS, AS COMPARED WITH AVERAGES OF THE PRE-WAR AND WAR PERIODS.

IMPORTS (in percentages).

(Sea borne: exclusive of treasure and of imports on Government account.)

	1909–14 Average.	1914–19 Average.	1931–32.	1932–33.	1933–34.
United Kingdom	63	56	36	37	41
Other parts of the British Empire.	7	9	9	8	9
U.S.A.	3	7	10	9	6
Japan	2	10	11	16	14
Java	6	8	4	3	2
Germany	6	1	8	8	8
Other Foreign Countries ...	13	9	22	19	20

NOTE.—Imports from Germany during the quinquennium 1914-19, consisted mostly of receipts in the early part of the official year 1914-15, and the residue of cargoes of prize vessels imported during the war period.

EXPORTS* (in percentages).

(Sea borne: exclusive of treasure and of exports on Government account.)

	1909–14 Average.	1914–19 Average.	1931–32.	1932–33.	1933–34.
United Kingdom	25	31	28	28	32
Other parts of the British Empire.	16	21	17	17	15
U.S.A.	8	12	9	7	10
Japan	8	11	9	10	9
France	7	4	5	6	5
Germany	10	1	6	6	6
Other Foreign Countries ...	26	20	26	26	23

NOTE.—Exports to Germany during the quinquennium, 1914-19, were confined to the early part of the official year 1914-15.

* Including re-exports.

COMMERCIAL SUMMARY

Area.—

	Sq. miles.
British India	1,096,171
Native States	712,508
Total	1,808,679

Population-Census of 1931.—

British India	271,526,933
Native States	81,310,845
Total	352,837,778

Language for Commercial usage.—English.

Monetary unit(s).—

3 pies = 1 pice.
4 pice = 1 anna.
16 annas = 1 rupee.
1 lakh = Rs.1,00,000
1 crore = 100 lakhs
} e.g., Rs.1,45,67,200 = 1 crore, 45 lakhs, 67,200 rupees.

Rate of Exchange (pre-war and current average quotations).—

	s.	*d.*
Pre-war	1	4
Current, June, 1934	1	6

Index Numbers—July, 1914—100.

Wholesale prices, Bombay—June, 1934 = 96.
Retail prices (food), Bombay—June, 1934 = 108.
Cost of living (working class), Bombay—June, 1934 = 95.

Principal weights and measures (other than ordinary metric or British) with British equivalents.

Weights and measures in India vary not only from district to district, but also for different commodities within the same district and, although the railways have given a lead to the adoption of a uniform system, the country is so vast that the differences are likely to persist for many years to come. The principal units in all the scales of weights are the maund, seer and the tola, and the standard weights for each of these are 82·28 lbs., 2·057 lbs. and 180 grains troy. The tola is the same weight as the rupee. In addition to these weights, there is the viss of 3·60 lbs. or 140 tolas and the candy of 500 to 840 lbs. It is not necessary for the purposes of this volume to detail any variations of the weight of the maund, except those which enter into the export trade. It will be sufficient to say that, in any particular city, there are probably as many different maunds as there are articles to weigh. The only varieties which need be considered in connection with the foreign trade are the Bengal or railway maund already specified, the factory maund of 74 lbs. 10 ozs. 11 drs., the Bombay maund of 28 lbs. and the Madras maund of 25 lbs. In October, 1913, the Government of India appointed a Committee to inquire into the whole question, and their majority report, which was presented in the following year, recommended the extension of the railway system based on the 180 grains tola, while the minority report advocated the adoption of the metric system. The views

of the Provincial Governments on these reports were obtained and the Government of India, in their Resolution dated the 3rd January, 1922, declared themselves in favour of the ultimate adoption in India, excluding Burma, of a uniform system of weights based on the scale now in use on the Railways. It has been decided that no new measures prescribing all-India measures of weight or capacity should be introduced at present but that the Local Governments should take such executive action as they can to educate public opinion in favour of the standard maund and seer.

In the table below an attempt has been made to present within a small compass the principal weights and measures employed in the Indian export trade.

Principal weights and measures in use in the export trade.

Name of Unit. General.	*British Imperial Value.*
Tola	180 grains troy.
Seer (Standard or Railway or Indian) ...	2·057 lbs.
Seer (Factory)	1 lb. 13·5 oz.
Viss	3·60 lbs.
Maund (Standard or 40 seers Railway or Indian)	82 lbs. 4 oz. 9 drs.
Maund (Factory)	74 lbs. 10 oz. 11 drs.

NOTE.—For local variations consult " Handbook of Commercial Information for India " by C. W. E. Cotton, C.I.E., I.C.S., 2nd Edition, 1924.

Total Imports—1st April, 1933 to 31st March, 1934.

	Rs.
Merchandise	1,15,38,26,026
Government Stores	1,94,75,278
Treasure	1,96,15,215
Total	1,19,29,16,519

Principal Imports—Cotton manufactures, machinery, oils, iron and steel, raw cotton.

	Rs.
Imports of merchandise from United Kingdom ...	47,58,52,443
Imports of merchandise from Japan	16,35,64,089
Imports of merchandise from Germany	8,89,37,092
Imports of merchandise from U.S.A.	7,16,54,057

Total exports—(Indian merchandise). 1st April, 1933 to 31st March, 1934. Rs.1,46,31,73,091.

Principal Exports—Jute and jute manufactures, cotton and cotton manufactures, tea, seeds and food grains.

	Rs.
Export of Indian merchandise to United Kingdom ...	46,57,58,272
Export of Indian merchandise to U.S.A.	13,93,43,488
Export of Indian merchandise to Japan	12,61,20,059
Export of Indian merchandise to Germany	9,47,83,260
Export of Indian merchandise to France	6,89,56,936

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Report on the Conditions and Prospects of United Kingdom Trade in India, 1933—34

CHAPTER I

GENERAL REVIEW OF THE PERIOD.

The year 1933-34, so far as internal conditions in India were concerned, would have been a favourable one but for the continued effect of those world-wide forces which maintained commodity prices at a very low level, restricted the markets for India's produce and continued to depress the purchasing power of the people. Even so, taking the year as a whole, there were signs of some slight recovery, which would have been greater but for the factors referred to above, over which India has no control.

The monsoon was, on the whole, a favourable one and the rainfall was generally well-distributed over the country except in some parts of the United Provinces and Central India. The Director-General of Commercial Intelligence reviews the agricultural situation by stating that the rice crop of 1932-33, though it fell short of the plentiful harvest of the preceding year, was quite good, being almost equal to the average of the preceding five years and the prospects of the new crop (1933-34) appear to be good, the outturn in Burma being expected to exceed that of the preceding year by 5%. The wheat crop harvested in 1933 was also satisfactory, the total production having exceeded the previous year's yield by 5%. A very good yield was also obtained for the sugarcane crop of 1932-33, exceeding the previous year's yield, already a record figure, by 17%. Before the earthquake in Bihar, the prospects of the new crop (1933-34) were reported to be still better and it was anticipated that the preceding year's yield would be exceeded by about 8%. The extent however of the damage caused by the earthquake is not yet known in detail and the above anticipations will almost certainly require modification. The production of tea in the year 1932 was also a record, amounting to 434 million lbs. while production for 1933 is expected to be in the neighbourhood of 375 million lbs. as a result of the recent restriction scheme. Jute production, under restricted cultivation, amounted to 79 lakhs of bales in 1933; this is 12% better than the previous year's yield, but does not come up to the average production of the five years ending 1931. The cotton crop of 1932-33 was not unsatisfactory being 13% greater than the low production of 1931-32. The prospects of the new cotton crop (1933-34) are reported to be better than in 1932-33. The present condition of the oilseeds crops of 1933-34 is reported to be from "fair to good," as was the case at the same date in the preceding season.

The Hon. the Finance Member, in his budget speech in February, 1934, summarised the position in the following terms :—

" Speaking quite generally one may say that, on the whole, agricultural conditions have been favourable and crop yields satisfactory. Recently, there has come upon one part of India a special disaster, in the earthquake in Bihar, but although this has had local consequences of a terrible nature, it will not appreciably affect the economic position of India as a whole. In the agricultural season which is now current or just completed there have been marked increases in the production of India's main money crops—jute, cotton, oilseeds and sugarcane—and, so far as export crops are concerned, the increased quantities seem to be finding a market. In all these respects, therefore, conditions have been such as warrant normal prosperity and the only trouble has been the low level of prices. Here there is at least a sign of improvement in that the disparity between the prices of primary agricultural products and of manufactured goods has during 1933 got definitely smaller, while, since the beginning of 1934, there has been a tendency towards rising prices and improved demand, notably in cotton. One therefore feels justified on all this evidence in entertaining some expectation of slightly better times next year. In confirmation of this there is on the whole a more optimistic feeling in the main business centres than was the case last year, while the recent steady increase in the goods traffic receipts on the railways and the improvement in our export trade figures are encouraging signs."

In previous reports in this series I have stressed the effects of the disastrous fall in the prices of primary commodities on India's general economic position and particularly on the purchasing power of her people. *It is encouraging to note that this fall has at last been checked and the Calcutta wholesale price index figure for all commodities rose by one point from* 88 *at the end of December,* 1932, *to* 89 *at the corresponding date in* 1933. The following table gives the index numbers of the principal export commodities as calculated by the Director-General of Commercial Intelligence and Statistics :—

	Basis 100 at end of July, 1914.				Percentage decline on the basis of Sept., 1929.			
	Sept. 1929.	Dec. 1931.	Dec. 1932.	Dec. 1933.	Dec. 1931.	Dec. 1932.	Sept. 1933.	Dec. 1933.
Rice	124	74	56	74	40	55	44	40
Wheat	135	86	89	73	36	34	43	46
Tea	129	68	57	130	47	56	19	*
Oilseeds	175	80	78	76	54	55	58	56
Cotton, raw	146	97	89	68	34	39	44	53
Cotton, manufactures	161	121	112	114	25	30	30	29
Jute, raw	90	58	38	38	36	58	58	58
Jute, manufactures ...	122	87	70	75	29	43	39	39
Hides and Skins ...	109	61	59	62	44	46	48	43
Metals	130	110	104	101	15	20	22	22
Sugar	164	147	139	124	10	15	16	24
All Commodities ...	143	98	88	89	31	38	38	38

* Increase of about 1%.

The remarkable increase in the index number for tea is the result of the International Agreement for Restriction. The rise was most noticeable from June, 1933, when the price basis for teas sold for export was much higher than those for internal consumption.

The next table shows the fluctuations in the index numbers for imported articles side by side with those for the principal exports. Prior to 1932, the decline in the export price level had been much greater than that in the import price level. The reversal of the process was due, in 1932-33, to very heavy imports of Japanese goods at phenomenally low prices. The movement continued in the year under review, during which there has been a rise of 5·8% in the figure for exported articles and a decline of 2·6% for imported items.

	Exported Articles.	*Imported Articles.*
1929—		
September	133	150
1931—		
December	81	124
1932—		
December	69	115
1933—		
January	70	115
February	69	111
March	65	110
April	66	111
May	71	111
June	75	113
July	78	113
August	74	114
September	72	114
October	71	114
November	72	111
December	73	112
Fall in December, 1932, as compared with September, 1929	48%	23%
Fall in September, 1933, as compared with September, 1929	46%	24%
Fall in December, 1933, as compared with September, 1929	45%	25%
Rise (+) or Fall (–) in December, 1933, as compared with December, 1932	+5·8%	–2·6%

The Indian cultivator has improved his position both by the 5·8% rise in the prices of the goods he exports and by the 2·6% fall in the prices of the goods he imports. When one takes into account, however, the fact that no less than 22½% of his income is spent in fixed

charges such as rent, rates of all kinds, interest to bania, etc., the prices which he receives for his crops allow nothing for the purchase of even the barest necessities of existence other than food, which he usually grows for his own consumption. We have the authority of the Finance Member for stating that there have been many alleviating factors which have resulted in the avoidance, so far, of any urgent crisis. The various Provincial Governments have made substantial remissions in land revenue and water rates. Landlords have not pressed for their full rents. India's ancient moneylending system has proved elastic and, generally speaking, demands for repayment of debts have not been pressed. As a result, the great mass of agriculturists have had enough to eat and a sufficient margin in cash not only to pay taxes at the reduced level but also to maintain at a fairly reasonable level their purchases of necessities.

In the report for 1932-33, reference was made to the remarkable staying power of the Indian consumer, based on figures cited by Sir George Schuster which showed that the quantitative consumption of the main necessities of the masses, viz., salt, kerosene and cotton piecegoods was in all cases higher for 1932 than for the average of the ten years 1920-30, which were years of post-war prosperity. The corresponding figures for 1933 show that consumption is still maintained at a high level though there is a slight decrease from 1932. Taking the figures of local production plus imports as representing approximately the level of consumption, the figures of consumption by quantities in 1933 work out at 11% higher than the 1920-30 average in the case of cotton piecegoods, 4% lower in the case of salt and 8% lower in the case of kerosene.

During the year ended the 31st March, 1934, the value of India's imports decreased, as compared with the corresponding period of 1933, by Rs.17 crores or 13% and amounted to Rs.115 crores. The total exports, including re-exports, rose by Rs.14 crores or 10% to Rs.150 crores. Exports of Indian merchandise showed an increase of Rs.14 crores or 10% and the re-exports also showed an increase of Rs.20 lakhs or 6%. The grand total of imports, exports and re-exports amounted to Rs.265 crores as against Rs.268 crores, a decline of Rs.3 crores or 1%.

India's Export Trade 1933-34.—The expansion of Rs.14 crores from the record low level of 1932-33 is attributable partly to the slight rise in the price level and particularly to the striking advance in the price of tea, but also to the shipment of increased quantities of the principal items, mainly to the United Kingdom.

The following table shows the quantities and values of the exports of the five principal commodities as compared with the preceding year :—

Article.	Unit.	1932–33.		1933–34.	
		Quantity.	Rs. (lakhs).	Quantity.	Rs. (lakhs).
Jute (raw and manufactured).	tons	1,243,000	31,44	1,420,000	32,31
Cotton (raw)	,,	368,000	20,37	489,000	26,59
Tea	lbs.	378,837,000	17,15	317,844,000	19,85
Rice	tons	1,887,000	14,46	1,744,000	10,57
Oilseeds	,,	732,000	11,31	1,124,000	13,66

Exports to the United Kingdom rose from Rs.37 crores to Rs.46½ crores, an advance of no less than Rs.9½ crores or 25%. Expressed as a percentage of India's total exports, the United Kingdom share rose from 27·9 to 31·8. Within the brief space of five years, the United Kingdom percentage of India's exports has risen from 20·9 in 1928-29 to 31·8 last year, an advance of 12 points. This remarkable result is due, firstly, to the fact that India's entry into that great market remains untrammelled by quotas, exchange restrictions and the countless other barriers raised by many countries with the object of reducing their imports and, secondly, to the benefits accruing from the preferences enjoyed by India as a result of the Ottawa Trade Agreement. In Chapter III will be found a careful assessment of the results of the first year's working of the Ottawa Agreement. It is appropriate here, however, to lay stress on the great advantage which India has enjoyed by securing free entry into the greatest consuming market in the world—in fact the only large open market which, at the present time, not only does not place obstacles or levy duties on India's exports, but encourages the development of her trade and co-operates wholeheartedly with Indian exporters in the extension of it. The value to India of the British connection will be the more readily appreciated if one studies conditions on the Continent of Europe. Mr. S. N. Gupta, I.C.S., the Indian Trade Commissioner at Hamburg, whose territory includes the whole of Northern Europe, describes conditions within his area in 1932-33 in the following terms :—

> " During the year under review there has been a definite intensification of barriers to international trade in nearly every European country. The administration of the exchange control system has been made much stricter in countries in which it was already in force; other countries have adopted modifications of the system for the further protection of their weakened currencies. The position has now been reached in most countries that not only is new business out of the question but only essential imports are permitted entry, and even in the case of essential imports quantities are so rationed that bare requirements are just covered. The import quota system has gained popularity in nearly every country. The list of commodities and manufactures to which the quota is applied has in most cases more than doubled in length. Countries which had hitherto confined the quota system to manufactured goods

and agricultural commodities in competition with their own produce have now extended it so as to cover products which can in no sense be adjudged competitive. The import licence system goes hand-in-hand with the import quota and exchange control systems and is intended to reinforce the latter; it is to be found in combination with one or the other of these systems in several countries. The account of trade barriers is, however, not complete without mention of the fact that during the year a number of customs duties have been increased in most Continental countries. The safeguarding of the national economy has been the basic motive of the erection of these barriers against international trade, yet at the same time every measure that has the diminution of trade for its object tends to deepen and prolong the depression and thereby necessitates further measures, and so the vicious circle goes on."

It is not surprising that Indian exporters were only too glad to cultivate the United Kingdom market, which welcomed their products, in striking contrast with the treatment they received elsewhere. The result is shown in the following table, which includes a few of the most important items exported to the United Kingdom in 1932-33 and 1933-34 :—

	1932-33. *Rs. (lakhs).*	1933-34. *Rs. (lakhs).*
Tea	14,78	17,58
Cotton (raw)	1,61	3,37
Skins (tanned)	2,76	2,91
Jute (raw)	2,24	2,55
Hides (tanned)	1,60	2,38
Linseed	16	1,81
Oilseed cake and meal	72	80
Goatskins (raw)	50	77
Woollen carpets and rugs	45	56
Paraffin wax	37	55
Rice (cleaned)	33	52
Tobacco (unmanufactured)	36	47
Coir manufactures	14	23
Steel bars	—	17

The strenuous efforts which are being made by the Lancashire Indian Cotton Committee, with the active co-operation of all sections of the Lancashire cotton industry, to encourage the use of Indian cotton are referred to elsewhere. It will suffice here to mention that in 1932-33 Indian cotton represented 4% of Lancashire's total consumption from all sources whereas, in 1933-34, the figure had doubled at 8%. It is not too much to expect that, within three or four years, Lancashire will be consuming a minimum of 500,000 bales of Indian cotton per annum.

Exports to the U.S.A. rose from Rs.10 to Rs.14 crores, those to Germany from Rs.8½ to Rs.9½ crores, Italy from Rs.5 to Rs.6 crores and Belgium from Rs.4 to Rs.4½ crores. On the other hand, shipments to Japan fell from Rs.14 to Rs.12½ crores (largely due to reduced takings of raw cotton as a result of the boycott), Holland from Rs.4 to Rs.3½ crores, France from Rs.8 to Rs.7 crores and South America from Rs.3½ to Rs.3¼ crores.

India's Import Trade 1933-34.—The rise of 5% which occurred in 1932-33 has not been sustained, and the total imports in 1933-34 fell by Rs.17 crores or 13% to Rs.115 crores, the lowest figure recorded during the present depression and less than half the volume of 1929-30.

In my last report I called attention to the fact that since September, 1931, the exports of gold bullion and coin, a large proportion of which represented the savings of the people, enabled the Indian consumer to substitute, at a good profit for himself, barren gold and ornaments for tenderable currency and so to maintain, in spite of diminished purchasing power, his consumption of certain standard necessities to a marked extent. This release of purchasing power synchronised with the flooding of the market with Japanese goods which, owing to a variety of reasons but principally the depreciation of the Yen exchange, were offered at prices sufficiently low to tempt even the diminished purchasing power of the bazaars. The shipments of gold continued during the year under review and reached the considerable total of Rs.57 crores—only Rs.8½ crores less than in 1932-33. In the meantime, however, stringent fiscal measures were taken to protect Indian industries against this invasion of cheap foreign imports. The duties on cotton piecegoods of non-British origin were raised by notification in June, 1933, to 75%, while the Indian Tariff Amendment Act imposed, from December, 1933, heavy minimum specific duties on a wide range of non-British goods including certain items of hosiery, paints, soap, earthenware and porcelain, boots and shoes, umbrellas, chemicals and glassware. The high protective duties on such items as sugar, iron and steel, paper, etc., had the effect of severely restricting the import trade in these items. It must be remembered that, in times of intense depression, the tendency of the local industry to improve its position at the expense of imports becomes accentuated. Thus, the share of the available Indian iron and steel market secured by the Tata Iron and Steel Co. Ltd. rose from 30% in 1927-28 to 72% in 1932-33. Moreover, the emergency surcharges on the revenue duties, which were imposed in 1931 to meet the urgent revenue requirements of the Government of India, have had a protective effect that was never intended, and a large number of small miscellaneous industries have been created during the past two years, the production of which has displaced a corresponding volume of imports.

The result of these factors has been, in the case of Japan, a fall in the total imports from Rs.20½ to Rs.16½ crores, including a decline of no less than Rs.3½ crores of cotton piecegoods and Rs.1¼ crores of artificial silk fabrics. In the case of Germany, total imports fell from Rs.10½ to Rs.9 crores mainly due to displacement by Japan in the cheap bazaar trades such as hardware, glassware, earthenware, etc., and partly on account of competition from the United Kingdom assisted by the Ottawa Preferences. Arrivals

from the U.S.A. slumped heavily from Rs.11 to Rs.7 crores largely owing to a reduction in the takings of raw cotton amounting to over Rs.3 crores. Imports from Java (mainly sugar) fell further from Rs.3¾ to Rs.2¼ crores; those from Belgium fell from Rs.3½ to Rs.2½ crores due to the contraction in steel imports. Italy also suffered from the high import duties on textiles, the total imports receding from Rs.4 to Rs.3 lakhs.

It is satisfactory to record that the imports from the United Kingdom were remarkably well maintained in face of a combination of adverse factors. The actual decline was from Rs.48¾ to Rs.47½ crores notwithstanding a fall of nearly Rs.3½ crores in the imports of United Kingdom cotton piecegoods, while the percentage share of total imports rose from 37 to over 41. This improvement in the United Kingdom position may, to some extent, be attributed to the beneficial effects of the Ottawa Preferences over a wide range of miscellaneous but highly competitive trades. The results of the preferential duties are discussed in detail in Chapter III.

The decline in India's imports in five years from Rs.253 crores to Rs.115 crores due, firstly, to reduced purchasing power resulting from the catastrophic fall in the prices of primary commodities and, secondly, to the policy of protection and high import duties, has had most serious repercussions on the revenue position. It must be remembered that no less than two-thirds of the central revenues of the Government of India have, in the past, been drawn from Customs duties on imports. As imports declined with corresponding shrinkage of revenue, fresh duties and surcharges were added to the revenue tariff to make good the deficiency. These, in turn, caused a further fall in imports until, in many cases, the law of diminishing returns began to operate. Moreover, the high tariff level resulted in the creation of new industries, which displaced imported goods and brought about a further restriction of imports and of Customs revenue. The budget of 1933-4 estimated revenue from Customs of Rs.51 crores; that of 1934-5 anticipates revenue from this source of not more than Rs.44½ crores. The import duty on sugar, which in 1930-31 produced over Rs.10 crores, is reduced in the 1934-5 estimates to Rs.2 crores and will be reduced still further as the production of Indian factories in 1935 is likely to equal the present level of consumption of white sugar. The recent high level of tobacco duties has brought about the transfer of the manufacture of cigarettes from the United Kingdom to Indian factories with corresponding loss of revenue. The protective duties on cotton textiles, iron and steel, paper and cement are reducing the imports of those items (and, pari-passu, the Customs revenue on them) to a fraction of their former volume.

A further inevitable result of the policy of economic nationalism and self-sufficiency which has hitherto received too little attention from Indian politicians is that—as Sir George Schuster expressed

it—" if we produce what other countries used to sell to us, their purchasing power for our exports will diminish unless we can raise the general standard of living in India and provide an increased market capable not only of absorbing the products of Indian industries, but also of continuing the use of imported commodities."

The revenue difficulty resulting from the shrinkage of imports is being met by the imposition of excises, for example in the cases of sugar, matches and iron and steel. The more serious long-range problem of India's future position in international trade if she pursues the present policy of rapid industrialisation and exclusion of imports, can only be solved by planned economy. On pages 53 to 60 I have outlined the schemes which are being considered since the late Finance Member called attention to the subject in his budget speech. Some of these will, doubtless, be rejected and many of them will be modified in the light of experience. The important point is that it is now widely realised that such a problem exists, that it presses for solution and that it must be attacked with vigour and experience. The Hon. the Finance Member brings to these questions a fresh mind and wide experience of financial and economic conditions in Europe. India presents great scope for his abilities at this turning point in her economic life.

The Outlook in the Import Trade.—Summarising the general factors, which govern the course of India's import trade, it should be noted that the rise in exports in 1933-34 is being continued during the current fiscal year. Crop prospects are generally favourable and the monsoon forecast issued in June estimates that the total amount of monsoon rainfall from June to September will not be below 95% of the average throughout the country, thus providing grounds for expectation that the rains will be abundant and that the produce export season of 1934-35 will be favourable provided only that there is no further serious dislocation in world prices and markets. Shipments of gold also continue on a larger scale than in 1933-34, thus helping to balance the international account and releasing purchasing power to be spent on imported goods. Railway receipts and returns of wagon loadings are notably in excess of the figures for last year. The increase in cheque clearances denotes a return of greater confidence, particularly in the share market. The political sky is clearer than it has been for many years and the racial feelings which were the aftermath of the boycott campaign not only have subsided but have been replaced by a growing recognition of the value of the British connection. The realisation of the favourable results to India of the Ottawa Trade Agreements and the visits to India of delegations from the United Kingdom cotton and steel industries have materially contributed to this better feeling, which finds its outstanding manifestation in the Clare Lees-Mody pact between the cotton industries of the two countries. This first essay in industrial co-operation will, it is hoped, shortly be followed by a

similar rapprochement between the British and Indian iron and steel industries. The industrialists in both countries are at last realising that the interests of all parties can best be served by substituting a progressive spirit of co-operation and mutual understanding for the old attitude of suspicion and distrust. The stimulus which this movement may be expected to exercise on the import trade is incalculable. As the late Finance Member stated in his budget speech " there is on the whole, a more optimistic feeling in the main business centres than was the case last year."

On the other hand, there are many obstacles in the path of a material increase in the volume of imports. In the first place, there will be a considerable time-lag before any improvement in India's export trade releases an appreciable amount of additional spending power to be invested in imported goods. The agricultural consumer, during the past five years of stress, must have increased materially the burden of his indebtedness to the Bania. Many arrears will have to be liquidated before he can largely increase the volume or improve the quality of his purchases of imported goods, many of which he has now come to regard as semi-luxuries. The agricultural and industrial depression still hangs like a heavy cloud over the country and such improvement as may take place will be relative only and probably very slow. Secondly, the combination of high protective duties on certain articles and the emergency level of revenue duties on the remainder will continue to have a severely restrictive effect on imports. We have already considered the serious effect which these fiscal handicaps have had on the national revenues. These duties are having a protective effect which was not intended and are stimulating a large number of nascent local industries, many of them economically unsuited to the conditions of the country, but which will strongly oppose the removal of the surcharges when the time comes for the Finance Member to redeem the pledge given that they shall be removed so soon as the financial situation permits. As Sir George Schuster recently stated :—

> " There is no doubt that in the last two years, partly aided by the high level of our revenue duties, there has been a general and marked development of minor industries in India. The Indian Stores Department, which is constantly encouraging this development, can give interesting illustrations of this. They report that marked developments are now taking place in Indian industries manufacturing a wide range of articles such as electric lamps and all kinds of electrical appliances, rubber tyres, water-softening plant, cooking stoves, asbestos cement products, paints and enamels—to mention only a few instances, while in recent years there have been well-known developments in the Indian manufacture of railway rolling stock, bridge work and heavy structures, in the case of which India is now able to manufacture all her requirements. Apart from these actual developments many new projects for the establishment of important factories are now under consideration."

Some idea of the limitation of the Indian market as an outlet for overseas exporters may be derived from a study of the production

figures of a few of the major protected industries. In 1933/34, at a time when industries in other countries were only working at a fraction of their capacity and, in many cases, were operating without profit and barely earning adequate depreciation allowances, the Indian cotton mills maintained their production of cloth at 2,945,000 yards, only 225 million yards below the record output of 1932/33; the Tata Iron and Steel Co.'s production of finished steel rose from 441,594 to 550,696 tons, the Company worked almost to capacity and earned a gross profit of Rs.286 lakhs (£2,145,000); the Tinplate Company of India, Ltd., were working practically to capacity with an output of fully 45,000 tons and were rapidly redeeming their debentures; the output of the paper mills rose from 40,217 to 43,658 tons and the production of Indian cement advanced from 592,531 to 642,944 tons. The competition of Indian industries, stimulated by the protective and revenue duties, the " swadeshi " movement, which is one of the most potent manifestations of economic nationalism, and the preferences accorded by Indian Government Departments when making purchases of stores, cannot fail to restrict the Indian market for imported goods.

In the near future, at least, United Kingdom industries will have to rely on the combined effects of preferential duties and industrial co-operation to enable them to secure, at the expense of other overseas competitors, a greater share of a limited market. The benefits of the preferential duties may be expected to increase as purchasing power revives. The advantages to be derived from complementary agreements between industries in India and the United Kingdom, operating within the framework of the Indian tariff, should be equally marked. Such industrial co-operation would not only regulate and improve Indian market conditions for both parties without detriment to the consumer but would ensure that the United Kingdom industry concerned would enjoy an increased share of the market's requirements surplus to Indian production. Further benefits would be obtained from the co-operation of the United Kingdom organisations, with their technical experience and knowledge of world-wide conditions, and Indian industries, with their knowledge of local conditions, in research work with the object of stimulating the consumption of their products by creating fresh outlets and uses for them and by joint effort to develop backward sections of the market and promote entirely new consumptive demand.

General Position of British Trade in India.—The following table, compiled by the Indian Statistical Department, clearly shows the percentage shares of the United Kingdom, the British Empire as a whole, and the principal foreign countries in the trade of India during the fiscal year 1933/34, as compared with the previous year and the average of the last five complete pre-war years, 1909/10 to 1913/14 :—

	Imports.			Exports, including re-exports.			Total Trade.		
	Pre-war average.	1932–33.	1933–34.	Pre-war average.	1932–33.	1933–34.	Pre-war average.	1932–33.	1933–34.
	Share %	Share %	Share %	Share %	Share %	Share %	Share %	Share %	Share %
United Kingdom	63	37	41	25	28	32	40	32	36
British Possessions	7	8	9	16	17	15	12	13	12
Total British Empire ...	70	45	50	41	45	47	52	45	48
Total Foreign Countries	30	55	50	59	55	53	48	55	52
Principal Countries.									
British Empire—									
United Kingdom	62·8	36·8	41·3	25·1	28·0	31·6	40·0	32·3	36·0
Ceylon	0·5	1·3	1·1	3·7	5·0	4·2	2·4	3·2	2·8
Straits Settlements	2·1	2·1	2·3	3·4	2·7	2·3	2·9	2·4	2·3
Australia	0·7	0·8	0·9	1·4	2·9	2·0	1·1	1·8	1·5
Hongkong	0·7	0·4	0·4	4·1	1·1	0·8	2·7	0·7	0·6
Other British Possessions ...	2·9	3·4	4·0	3·4	5·7	5·6	3·2	4·8	4·8
Total British Empire ...	69·7	44·8	50·0	41·1	45·4	46·5	52·3	45·2	48·0
Foreign Countries—									
Japan	2·5	15·4	14·2	7·5	10·4	8·7	5·5	12·9	11·0
United States	3·1	8·5	6·2	7·5	7·4	9·6	5·8	7·9	8·1
Java	6·4	2·8	2·1	1·3	0·5	0·3	3·3	1·7	1·1
France	1·5	1·5	1·3	6·6	6·0	4·7	4·6	3·8	3·2
Italy	1·0	3·0	2·5	3·2	3·5	3·8	2·3	3·2	3·2
China (exclusive of Hongkong and Macao).	1·1	2·2	1·9	3·9	2·7	4·0	2·8	2·4	2·5
Belgium	1·9	2·6	2·3	5·3	3·0	2·9	3·9	2·8	2·6
Germany	6·4	7·8	7·7	9·8	6·5	6·4	8·5	7·1	6·9
Other Foreign Countries ...	6·4	11·4	11·8	13·8	14·6	13·1	11·0	13·0	13·4
Total Foreign Countries	30·3	55·2	50·0	58·9	54·6	53·5	47·7	54·8	52·0
Total	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0

In my last report I recorded the view that the nadir of United Kingdom-India trading relations had definitely been passed and that future years would show a slow but steady movement in the upward direction. This forecast has been fulfilled during the past year. Notwithstanding a reduction of the total imports by over Rs.17 crores, the imports from the United Kingdom fell by Rs.1·2 crores only and her share of the total import trade rose from 36·8 to 41·2%. This relatively satisfactory figure, which compares with the low-water mark of 35·5% in 1931/32, was attained in spite of a reduction of Rs.3⅓ crores in the imports of United Kingdom piecegoods and an appreciable decline in the percentage under the head of machinery, the second most important United Kingdom contribution. Two clear deductions can be made, first, that imports from the United Kingdom scarcely suffered from the heavy reduction in the total trade, the burden of which was borne by other foreign countries and, second, that the improvement in her relative position has been in the wide variety of miscellaneous trades other than the two main items of cotton textiles and machinery—which, of themselves, accounted for over 36% of her total shipments.

In the export trade also, it will be remarked with satisfaction that the United Kingdom percentage of India's exports rose from 27·5 in 1931/32 to 27·9 in 1932/33 and to 31·8 in the period under review. The benefits to India of free entry into the United Kingdom market are indisputable and are of inestimable value at the present time when intercourse with most Continental markets is hedged round by irksome restrictions. A study of Chapter III further discloses the fact that, for a variety of reasons largely attributable to the present abnormal state of trade, India has benefited from the Ottawa Trade Agreement to a greater extent than has the United Kingdom. The following figures, read in conjunction with the previous table, bring out this point fairly clearly :—

	1929–30. %	1930–31. %	1931–32. %	1932–33. %	1933–34. %
Exports to India from the U.K. expressed as a percentage of the total exports of the U.K.	10·7	9·3	8·3	9·3	9·1
Exports to the U.K. from India expressed as a percentage of the total imports of the U.K.... ...	5·1	4·9	4·3	4·6	5·5

As the Director-General of Commercial Intelligence states in his illuminating review of the working of the Agreement during the year 1933/34, the following facts emerge :—

1. With the exception of 1932/33 and 1933/34, the imports of United Kingdom goods into India have formed progressively a less important part of India's total imports, whether from all countries or from British Empire countries alone. In other words, the United Kingdom has failed to maintain her 1928/29 position in the Indian market and her sales to the rest of the world have not slumped so heavily.

2. On the other hand, exports from India to the United Kingdom have become a larger part of total Indian exports and, at the same time, the same goods have formed a smaller part, except in 1933/34, of the total imports into the United Kingdom. In other words, the United Kingdom, as a market for Indian goods, proved to be of much greater importance without having deteriorated as a buyer from other countries.

The Director-General summarises by stating that although after the Ottawa Trade Agreement the United Kingdom has improved her position in the Indian market, there is still a good deal of leeway for her to make up. On the other hand, she proved to be an increasingly important market for Indian goods.

In Appendix IV will be found statements showing the values of the principal articles imported from the United Kingdom, Japan, the U.S.A., Germany, Belgium and Italy, over a series of years including the pre-war period. These show the nature of the competition which is being encountered and its varying intensity in the post-war period.

Foreign Competition.—The following table shows the aggregate imports and the percentage of the total trade obtained by our leading competitors. It will be observed that in each case both actual and relative declines are recorded :—

	Values of Imports.		Share of Total Imports.	
	1932–33.	1933–34.	1932–33.	1933–34.
	Rs. (lakhs)	Rs. (lakhs)	%	%
Japan	20 47	16,35	15·4	14·2
U.S.A.	11,25	7,16	8·5	6·2
Germany	10,38	8,89	7·8	7·7
Belgium	3,41	2,66	2·6	2·3
Italy	3,94	2,91	3·0	2·5

Japanese Competition.—After the remarkable increase of Japanese imports by 50% in 1932-33, the year of the fall in the yen exchange, the reduction by 20% from Rs.20 to Rs.16 crores last year came as an anti-climax. It must be attributed in the main to the increased import duties on foreign piecegoods imposed by the Government of India with the specific object of protecting certain Indian industries against Japanese competition, which threatened them with extinction. In June 1933 the Government of India, by notification under Section 3 (5) of the Indian Tariff Act raised the duties on piecegoods of non-British origin from 50 to 75% and these duties remained in force until, in accordance with the terms of the Indo-Japanese Agreement, they were lowered to 50% in January 1934. This checked to some extent the influx of such great quantities of Japanese cotton piecegoods. From the 23rd December 1933, by virtue of the Indian Tariff (Amendment) Act,

minimum specific duties were imposed on a number of articles of non-British origin which included boots and shoes, certain chemicals, cotton and woollen hosiery, woollen fabrics, paints, soap, certain items of electrical and domestic porcelain and earthenware, certain items of glassware, hardened fish and whale oil, cast iron pipes and umbrellas. These duties were pitched at rates which were intended to restore Japanese prices to the level existing before the depreciation of the yen and there is little doubt that they have checked to some extent the import from Japan of these items although Japanese prices have not been increased to the extent that was anticipated.

A study of the values of the principal articles imported from Japan which are given in Appendix IV, Table B, discloses the fact that, whereas in 1932-33 75% of Japan's shipments were within the textile group, the figure for 1933-34 had fallen to 63%. The following table shows the reduction in the imports of some of the principal items :—

	1932/33. *Rs. (lakhs).*	1933/34. *Rs. (lakhs).*
Cotton piecegoods	7,85	4,43
Artificial Silk	2,71	1,56
Cotton Yarn	1,61	96
Brass, bronze and other alloys	41	32
Earthenware and porcelain	31	26
Glass bangles	22	13
Paper	16	12

The restrictive effect of the higher duties is clearly evidenced.

On the other hand, noteworthy increases took place in the following articles :—

	1932/33. *Rs. (lakhs).*	1933/34. *Rs. (lakhs).*
Woollen manufactures	14	33
Apparel	25	30
Chemicals	13	23
Copper	7	9
Cotton Hosiery	61	72
Haberdashery and Millinery	18	17
Instruments and Apparatus	23	30
Iron and Steel	14	27
Machinery	4	8
Rubber Manufactures	13	18
Toys and games requisites	23	34
Miscellaneous glassware	20	23
Hardware	30	34

It will be noted that Japanese competition is becoming acute in a constantly widening range of items. The Japanese onslaught on the woollen trade is of very recent growth, but in spite of the specific minimum duty of 18 annas per lb., shipments are increasing from month to month and Japanese cloths are rapidly displacing

some of the best known Bradford and Continental qualities. Similarly, in chemicals, the threat to the position of existing suppliers is becoming more serious and is likely to continue.

The Indo-Japanese Treaty and Protocol.—In April 1933, H.M. Government gave notice to terminate the Indo-Japanese Trade Agreement in order to secure a free hand to deal with the changed situation. This was followed by the despatch to India of an official Japanese Mission, headed by H. E. Mr. Setsuzo Sawada, who were in negotiation with the Government of India from September 1933 until April 1934. Meanwhile, Japanese cotton interests, as a measure of retaliation against the enhanced Indian duties on Japanese textiles, instituted a boycott of Indian raw cotton which was in force from July 1933 to January 1934 when it was lifted as a result of the successful negotiations between the representatives of the two Governments. The terms of the new treaty will be found " in extenso " in Appendix I. The protocol to the treaty, which came into operation on the 8th January, 1934, and remains in force until the 31st March, 1937, introduces for the first time the principle of linking imports of Japanese piecegoods on a quota basis with exports of Indian raw cotton. At the same time, provision is made for the maintenance of most-favoured-nation treatment, the two contracting parties reserving to themselves the right to impose or to modify special customs duties to correct the effects of possible further exchange depreciation. It is agreed that the duties on Japanese cotton goods shall not exceed the following rates :—

Plain Greys—50% ad valorem or 5¼ annas per lb. whichever is higher. Others—50% ad valorem.

The basic quota of Japanese cotton piecegoods which may be exported to India in a piecegoods year (1st April to 31st March) is fixed at 325 million yards linked with one million bales of Indian raw cotton to be exported to Japan in the corresponding cotton year (1st January to 31st December). If the exports of raw cotton from India to Japan in any cotton year exceed one million bales, the basic quota of cotton piecegoods for the corresponding piecegoods year shall be increased by 1½ million yards for every 10,000 bales of the excess provided that *the quota of cotton piecegoods shall not in any case exceed* 400 *million yards for any cotton piecegoods year.* Provision is also made for diminution in the piecegoods quota in the event of raw cotton shipments falling below one million bales. Further, cotton piecegoods are divided into four categories and the quota in any piecegoods year will be divided among these four categories as follows :—

Plain greys	45%
Bordered greys	13%
Bleached (white) goods	8%
Coloured (printed, dyed or woven) goods	34%

Provision is made in Article 7 for the limited transfer under certain conditions from one category to another provided that the total quota shall not thereby be increased and that the amount transferred from a bordered greys or bleached goods category shall not exceed 20% of the amount of such category and the amount transferred from any other category shall not exceed 10% of the amount of such category.

Inasmuch as Japanese cotton piecegoods shipments in 1932-33 totalled 580 million yards, the quota provides for a reduction of roundly 200 million yards per annum. It is reasonable to assume that, with a rapidly increasing population, Indian consumption is more likely to increase than to decline. The effect of the treaty, therefore, will be to provide an additional 200 million yards to be shared by the Indian and Lancashire mills.

Competition by the U.S.A.—The effects of an adverse rate of exchange, coupled with the general reduction in imports, caused a contraction in the imports from the U.S.A. from Rs.15 crores in 1930-31 to Rs.13 crores in 1931-32, Rs.11 crores in 1932-33 and Rs.7 crores in the year under review. The fall in the external value of the dollar to the old par rate in May-June-July, 1933, and its subsequent further decline to 5·46 to the pound in November, 1933, gave a stimulus to U.S.A. exports in the latter half of the fiscal year which is reflected in the import returns during recent months. Now that the dollar has for some time been comparatively stable round about $5·05 to the pound, this competition is becoming keener. Up to the end of 1933, the position was complicated by several factors, notably :—

(*a*) the necessity on the part of importers and distributors to work-off and to average stock of goods and also exchange contracts purchased at the old exchange rates;

(*b*) international or local price agreements which concealed the effect of the exchange;

(*c*) the import of goods from the United Kingdom branch factories of U.S.A. manufacturers. This practice has become general since the adoption by India of Imperial Preference;

(*d*) the speculative purchases of certain dealers, notably in the provision trade, which represented an exchange gamble rather than legitimate trading operations; and

(*e*) the desire of distributors of U.S.A. goods to recover past losses in the form of sacrifices of commission, allowances and advertising grants (which had been necessary to keep their goods on the market during 1931/32 and 1932/33) and to secure full margins of profit before reducing rupee prices.

This temporary phase, however, has now passed and the last few months have witnessed a revival of U.S.A. competition, notably in respect of motor vehicles, tyres, machinery, hardware and tools, instruments and apparatus and chemicals.

The heavy fall in arrivals from the U.S.A. during 1933-34 is mainly attributable to reductions in the imports of raw cotton from Rs.384 to Rs.64 lakhs, mineral oils from Rs.131 to Rs.118 lakhs, rubber goods of all kinds from Rs.52 to Rs.21 lakhs, cotton piecegoods from Rs.33 to Rs.17 lakhs, tobacco from Rs.57 to Rs.27 lakhs and toilet requisites from Rs.18 to Rs.13 lakhs. On the other hand, arrivals of motor vehicles rose from Rs.89 to Rs.97 lakhs and U.S.A. cars are rapidly regaining much of the field lost between 1931 and 1933. Shipments of machinery remained practically unchanged at Rs.80 lakhs. Imports of hardware rose from Rs.16 to Rs.23 lakhs, instruments and appliances from Rs.53 to Rs.57 lakhs and belting from Rs.8 to Rs.9 lakhs. While it is true that the fall in the external value of the dollar has been effectual in reducing the prices of U.S.A. goods expressed in rupees, this advantage has been partly offset by the increase in production costs resulting from the National Recovery Programme. There is no doubt, however, that U.S.A. competition will be more severe during the current year and United Kingdom manufacturers should spare no effort to consolidate the ground gained during 1931-1933.

German Competition.—Germany has suffered severely from the competition of Japanese goods, which are invading all the bazaar trades that were formerly the preserve of the Hamburg shipping merchant. She has also been affected to a much lesser extent by keener competition from United Kingdom goods aided by the preferential duties. Thus, her trade in hardware declined from Rs.108 to Rs.86 lakhs, yellow metal sheets from Rs.72 to Rs.47 lakhs, iron and steel from Rs.42 to Rs.37 lakhs, chemicals from Rs.40 to Rs.34 lakhs, instruments and appliances from Rs.65 to Rs.56 lakhs, rubber manufactures from Rs.15 to Rs.9 lakhs and woollen goods from Rs.24 to Rs.16 lakhs. The effects of the differential duties on textiles of non-British origin have reduced imports from Germany in almost every item. On the other hand, arrivals of machinery rose from Rs.98 to Rs.132 lakhs due to the boom in sugar machinery, while imports of German dyestuffs remained constant at Rs.136 lakhs as a result of a firmly entrenched position and price agreements. Notwithstanding Germany's adherence to the gold standard, the desperate efforts of German exporters to retain their overseas markets prompt them to quote rates for export which cannot possibly be related to the true costs of production, and with which United Kingdom shipping merchants, even with the advantages of the depreciation in sterling and the preferential duties, find it difficult to compete.

Belgian Competition.—The reduction in imports from Belgium is accounted for by a drop in her shipments of iron and steel from

104,000 to 72,000 tons and from Rs.123 to Rs.84 lakhs in value. The reduction was most marked in the case of galvanised sheets, now subject to special preferential duties which are gradually ousting the Belgian product. Imports of precious stones also fell from Rs.69 to Rs.55 lakhs and glassware (mainly window glass) from Rs.15 to Rs.11 lakhs. Arrivals of Belgian machinery rose from Rs.39 to Rs.43 lakhs as a result of contracts for sugar plant. It is always difficult to assess the true value of Belgian trade as considerable quantities of German, Dutch and French merchandise are shipped from Antwerp and appear in the returns as being of Belgian origin.

Italian Competition.—Italian shipments during the year fell from Rs.394 to Rs.291 lakhs due mainly to the considerable increase in the import duties on all foreign textiles which was intended to check Japanese imports but which, owing to the need for maintaining most-favoured-nation treatment, had to be applied to the goods of all non-British countries. Imports from Italy of cotton piecegoods fell from Rs.22 to Rs.2 lakhs, woollen manufactures from Rs.75 to Rs.61 lakhs, artificial silk yarn from Rs.48 to Rs.37 lakhs, silk manufactures from Rs.24 to Rs.6 lakhs and cotton and artificial silk mixtures from Rs.22 to Rs.16 lakhs. The reduction in the general level of the duties on cotton piecegoods to 50% and the further reduction in the case of such Italian specialities as sateens, velvets and velveteens to 35% will, it is hoped, reduce the burden on the Italian shipper. Apart from textiles, Italian trade was fairly well-maintained during the year. Imports of chemicals (mainly sulphur) rose from Rs.15 to Rs.15½ lakhs, fruits and vegetables from Rs.19 to Rs.20 lakhs and machinery from Rs.7 to Rs.13 lakhs. Considerable quantities of German, Austrian, Hungarian and Czechoslovak goods are, however, shipped by Italian steamers from Genoa and Venice, some of which appear in the returns as being of Italian origin.

The Balance of Trade.—The Controller of the Currency, in his informative report for 1933-34, upon which I have freely drawn for the ensuing comments, gives the following statement which compares India's visible balance of accounts during the year with the figures for the two preceding years and the averages of the ten pre-war years ending 1913-14 and the ten years after the war ending 1930-31. The detailed figures work up to a *plus* or *minus* balance (*plus* representing net export and *minus* representing net import) for each of the three main heads of classification, namely—

(1) private imports and exports of merchandise,

(2) private imports and exports of treasure, and

(3) remittances through Government leading up to a *plus* or *minus* total for the transactions as a whole :—

——	Average of 10 pre-war years ending 1913–14.	Average of 10 years ending 1930–31.	1931–32.	1932–33.	1933–34.
		(In Lakhs of Rupees.)			
Exports of Indian merchandise (private).	+1,94,67	+3,12,09	+1,55,56*	+1,33,22*	+1,48,77*
Re-exports of Foreign merchandise (private).		+ 10,39	+ 4,66	+ 3,22	+ 3,43*
Imports of Foreign merchandise (private) (*b*).	−1,22,93	−2,25,39	−1,28,48*	−1,36,41	−1,19,20*
Balance of Trade in Merchandise (Private).	+ 71,74	+ 97,09	+ 32,74	+ 3	+ 33,00
Gold (private) (*a*) ...	− 20,87	− 26,20	+ 57,98	+ 65,52	+ 57,05
Silver (private) (*a*) ...	− 7,67	− 15,90	− 2,59	− 73	− 1
Currency notes (private) (*a*).	—	− 27	+ 26	+ 13	+ 19
Balance of Transactions in Treasure (Private) (*a*).	− 28,54	− 42,37	+ 55,65	+ 64,92	+ 57,23
Total Visible Balance of Trade.	+ 43,20	+ 54,72	+ 88,39	+ 64,95	+ 90,23
Council bills and telegraphic transfers paid in India, purchases of sterling from banks and firms in India and payments for sterling taken over in London from local bodies.	− 38,47	− 26,73	− 53,04	− 48,18	− 59,97
Sterling transfers on London sold in India.	+ 1,22	+ 97	+ 18,98	—	—
Transfers of Government Securities.	− 71	− 1	+ 6	− 13	− 11
Interest drafts on India in respect of Government of India securities.	—	− 36	− 32	− 32	− 36
Balance of Remittances of Funds.	− 37,96	− 26,13	− 34,32	− 48,63	− 60,44
Total Visible Balance of Accounts.	+ 5,24	+ 28,59	+ 54,07	+ 16,32	+ 29,79

(*a*) Excludes transactions which do not enter into the balance of trade.
(*b*) Exclusive of the value of railway materials imported direct by State Railways working under company management.
* Includes figures for the Kathiawar Ports.

It will be observed that the trade figures for the Kathiawar ports have been added this year. In view of the fact that the net imports through these ports totalled Rs.3,34 lakhs in 1932-33 and Rs.1,71 lakhs in 1933-34, it is necessary to take these figures into account in arriving at the correct balance of trade.

The increase in the total visible balance of trade from Rs.64,95 lakhs to Rs.90,23 lakhs is the more satisfactory inasmuch as it is the combined result of an increase of 15½ crores in the exports of Indian merchandise and re-exports of foreign merchandise and a fall of 8½ crores in the exports of gold. Unfortunately, it was contributed to by a decline of 17 crores in the imports of foreign merchandise with corresponding loss in Customs revenue. The following articles chiefly contributed to the improvement under exports :—oilseeds Rs.2,35 lakhs; hides and skins (raw and tanned) Rs.2,55 lakhs; tea Rs.2,69 lakhs; cotton (raw and waste) Rs.6,28 lakhs; gums, resins and lac Rs.1,23 lakhs and jute Rs.1,20 lakhs. These items were partly set-off by a reduction under grain, pulse and flour of Rs.4,32 lakhs. The reduction under imports is mainly accounted for by a fall in yarns and textile fabrics of Rs.10,61 lakhs, raw cotton Rs.3,70 lakhs, sugar Rs.1,51 lakhs and oils Rs.1,19 lakhs partly counterbalanced by an improvement in the case of machinery of Rs.2,21 lakhs.

It is eminently satisfactory that the trade balance in merchandise in favour of India rose from Rs.3 lakhs to Rs.33 crores, i.e., to 34% of the average of the ten post-war years and 46% of the average of the ten pre-war years. This balance, plus the net export of Rs.57,23 lakhs of treasure, resulted in the total favourable balance of Rs.90,23 lakhs (Rs.90¼ crores) which is available to meet India's essential obligations in London. As Sir George Schuster pointed out at the Ottawa Conference :—

> "The Government of India, in order to meet its essential obligations has to find about £30 million sterling annually, that is to say Rs. 40 crores while, on the average, a further margin of 10 crores (£7½ million) at least is required to meet other items in the adjustment of payments on private accounts. Therefore, apart from movements of capital or the country's requirements for the purchase of precious metals, India in order to maintain an even position requires a favourable trade balance of at least Rs. 50 crores (£37½ million) annually."

It is to be hoped that, with expanding exports of merchandise, this balance of Rs.50 crores will next year be obtained on merchandise alone without taking into account the balance of gold exports—a temporary phenomenon. The amount remitted by Government increased from Rs.48,18 lakhs to Rs.59,97 lakhs. The net balance of remittance of funds amounted to Rs.60,44 lakhs and the total visible balance of accounts was Rs.29,79 lakhs, an increase of 82% over that of the previous year. If account is taken (*a*) of the net payment in India of United Kingdom Postal Orders and of Foreign Money Orders of countries which settle their accounts through London amounting to Rs.11 lakhs, and (*b*) of Government transfers on account of 'Iraq and Mauritius amounting to

Rs.86 lakhs, the total balance of accounts reaches the sum of Rs.28,82 lakhs.

Exports of Gold.—The net export of gold during the year was 6,695,000 ounces valued at Rs.57,05 lakhs against 8,354,000 ounces valued at Rs. 65,52 lakhs in the previous year. The price of gold in terms of sterling fluctuated between £5 12s. 9d. in May, 1933, and £7 in February, 1934—a record price for the metal. As the Controller states :—

> " Altogether about 23,435,867 ounces have been exported in the last three years that is to say approximately 47% of the gold imported since 1920-21. As stated in last year's report, if allowance is made for the very large imports of gold prior to 1920-21, it is obvious that only a small fraction of India's total gold holding has been realised so far. There is evidence that a very large proportion of the gold whether newly mined or exported from India, which came to the London market for disposal during the year, is held outside the reserves of Central Banks and a large part of it is believed to be held in London on Continental account."

Silver.—The three outstanding events of the year connected with silver, so far as India is concerned, were (*a*) the London Economic Conference agreement entered into in July, 1933, by the delegates of India, China and Spain as holders of large stocks or users of silver, and of Australia, Canada, the U.S.A., Mexico and Peru as principal producers of silver, (*b*) the acceptance by the U.S.A. of ten million dollars in silver as part payment of the United Kingdom War Debt instalment due on June 15th, 1933, and (*c*) the proposal of the Government of India to lower the duty on silver from 7½ annas per ounce to 5 annas per ounce with effect from the 1st March, 1934. The terms of the silver agreement were as follows :—

> (i) (*a*) The Government of India shall not sell more than 140 million fine ounces of silver during the four years commencing 1st January, 1934, on an average of 35 million fine ounces per year. If in any year the sale falls short of 35 million fine ounces, the balance shall be carried forward, subject to a maximum disposal in any one year of 50 million fine ounces.
>
> (*b*) Any silver sold by the Government of India to any Government for the purpose of payment of War Debt to the U.S.A. Government shall be excluded from the scope of this agreement, provided that the total sales under (*a*) and (*b*) shall not exceed 175 million fine ounces.
>
> (ii) H.M. Governments in Australia and Canada, the Governments of the U.S.A., Mexico and Peru shall not sell any silver and shall also in the aggregate purchase or otherwise arrange for withdrawing from the market 35 million fine ounces of silver from the mine production of such countries in each calendar year for currency purposes (either for coinage or for currency reserves).
>
> (iii) The Government of China shall not sell any silver resulting from demonetised silver during the four calendar years commencing 1st January, 1934.
>
> (iv) The Government of Spain shall not sell more than 20 million fine ounces during the four years commencing 1st January, 1934 at an average of 5 million fine ounces per year. If the sale in any year falls short of 5 million fine ounces the balance shall be carried forward, subject to a maximum sale in any one year of 7 million fine ounces.

The Controller of the Currency comments on these events as follows :—

"The publication of the Agreement which was subsequently ratified by all the Governments concerned did not have any very important effect on the price of silver mainly because some action of the kind had been anticipated and discounted. The importance of the agreement lies in its being the first overt step in the direction of concerted action towards preventing a further fall in the price of silver owing to governmental action.

The acceptance by the U.S.A. Government of 10,000,000 dollars in silver as a part payment of the War Debt instalment enabled the Government of India to dispose of a substantial quantity of refined silver at a favourable price without in any way affecting the market. The actual amount of fine silver shipped from Bombay on this account amounted to approximately 20 million fine ounces. In introducing his proposal for the reduction in the duty on silver the Finance Member pointed out that for all practical purposes the imports of silver had ceased primarily owing to the lack of purchasing power in the country. On the other hand the high duty was probably encouraging smuggling and attracting silver through gaps which existed in the Land Customs regime. This constituted a serious impediment to legitimate trade. He pointed out further that a reduction in the duty would take into account the general policy of Government, which was to co-operate with the U.S.A. and other countries interested in silver in measures designed to improve its price. It was considered that the lowering of the duty was unlikely to have the effect of disturbing local prices which were substantially under London parity after allowing for the duty.

The fact that Bombay silver prices were practically continuously quoted under parity with London prices was a remarkable feature in the local market and there can be little doubt that it was mainly due to the fact that imported silver which had not paid duty was available in the market.

Various measures to meet this difficulty have been taken during the year by Government, and it is understood that proposals to deal with imports of silver from Persia through Baluchistan where there is no customs barrier were under the consideration of the Government at the close of the year."

The Course of Exchange and Remittances to the Secretary of State.—The highest and lowest quotations for telegraphic transfers on London were 1/6$\frac{1}{16}$ in May, 1933, and in January, February and March, 1934, and 1/5$\frac{13}{16}$ in November, 1933. The Controller states that :—

"As in previous years, purchases were made by weekly offers for open tender in India and intermediates were purchased throughout the week except on the tender day at a rate ordinarily $\frac{1}{32}$d. above the highest rate at which tenders were accepted. The total amount of sterling purchased during the year amounted to £45,158,000 at an average rate of 1s. 6·071d. as compared with an average rate of 1s. 6·156d. in the preceding year. The weekly offer to purchase one million sterling by tender was maintained without interruption throughout the year. With the exception of one week in April, one week in September and a period of seven successive weeks from the 17th October to the 29th November, Government were able to effect purchases at 1-6$\frac{1}{16}$ each week. As in the previous year the mainstay of the rupee sterling exchange was the substantial export of gold. In addition this year records of a noticeable increase in the balance of trade in merchandise in favour of India and in the absence of remittance cover Banks had to have recourse to Government for their requirements. The weakness of exchange from the middle of October until the end of November coincided with the discussions on the Reserve Bank Bill in the Legislative Assembly and a widespread political campaign coupled with propaganda in favour of the

devaluation of the rupee. Speculators made extensive forward purchases of exchange, and gold exports were held up in view of the possibility of an increase in price. Owing to the general feeling of uncertainty created by these operations Banks were unwilling sellers except at low rates and exchange fell gradually to 1s. $5\frac{13}{16}$d. on the 18th November. This situation righted itself immediately as soon as Government made it clear that they had no intention of accepting any amendments to the Reserve Bank Bill which would have the effect of altering the rupee sterling ratio. Small tenders at 1-6$\frac{1}{16}$ were received in the first three weeks of December and by the 28th December exchange was firm, resulting in tenders amount to £3,775,000 at that rate. During the last three months of the year exchange was very firm and large amounts of sterling were purchased both by tender and as intermediates. Large stocks of gold had accumulated in Bombay in anticipation of currency inflation in the U.S.A. and the devaluation of the dollar in February and the consequent record rise in the price of gold in London led to exceptionally heavy shipments both to New York and London over a period of several weeks. Actually remittance to the extent of £17·6 million was effected between 15th January and 15th March."

Money Market Conditions in India during the Year.—The year opened with the bank rate at $3\frac{1}{2}$% and it remained at that level throughout the year. As the Controller states :—

"This is the first time since the Imperial Bank was formed that no change in the bank rate was made during the whole of the financial year, and this is an indication of the general slackness in the trade demand and the prevailing low level of prices of commodities. Although the bank rate was not changed during the year, the rate for call money fluctuated from time to time, and on one occasion touched 4%. This was in October, 1933, when the failure of a large firm of Managing Agents in Bombay created a feeling of nervousness in the Bombay market and even led to some small runs on local banks. This, however, did not last very long and money rates receded to 1%. Time money rates remained unaffected and were quoted at $1\frac{3}{4}$% up to three months. Money was in more demand towards the end of the year and in the first three months of 1934. This was largely seasonal but was accentuated by the fact that large quantities of gold were held up in Bombay against advances which tended to reduce the margin available for the finance of other commodities which were beginning to move at that time. The cash balance of the Imperial Bank stood at the high level of 18·62 crores in the last week of December, and after falling to 11·89 crores in the last week of February had increased to over 12 crores by the last day of the financial year. Although at times there was an appearance of stringency in the money market, especially in Calcutta, at no time was there any very strong demand for trade purposes, and on the occasions when tightness appeared to prevail it was usually caused by the locking up of money either in the financing of securities or, as mentioned above, in carrying stocks of gold."

The Public Debt.—The following statement, abstracted from the Currency Report, shows separately loans, treasury bills in the hands of the Public and in the Paper Currency Reserve, ways and means advances from the Imperial Bank of India and other obligations. On the other side of the account are shown the cash, bullion and securities held on treasury account, that is to say, as distinct from the Paper Currency and the Gold Standard Reserves. Those assets are also shown which are represented by definite interest bearing obligations to the Government of India either from provincial Governments and Indian States or the Indian Railways and other Government commercial departments :—

	31st Mar., 1932.	31st Mar., 1933.	31st Mar., 1934.
	(In crores of rupees.)		
In India—			
Loans (*a*)	422·69	446·89	435·17
Treasury bills in the hands of the public ...	47·53	26·09	33·31
Treasury bills in the Paper Currency Reserve	49·67	35·48	25·93
Ways and means advances	9·50	—	—
Total Loans, etc.	529·39	508·46	494·41
Other Obligations—			
Post Office Savings Banks	38·20	43·40	52·32
Cash certificates	44·58	55·64	63·72
Provident funds, etc.	73·04	76·74	82·14
Depreciation and Reserve Funds	17·65	15·22	15·36
Provincial Balances (*b*)	4·32	7·02	4·42
Total Other Obligations	177·79	198·02	217·96
Total in India	707·18	706·48	712·37
In England—	(In millions of £.)		
Loans (*a*)	•313·60	314·33	320·61
War Contribution	16·72	16·72	16·72
Capital value of liabilities undergoing redemption by way of terminable railway annuities.	48·72	47·06	45·35
India bills	—	—	—
Imperial Bank of India Loans	—	—	—
Provident Funds, etc.	·80	·91	1·02
Total in England	379·84	379·02	383·70
	(In crores of rupees.)		
Equivalent at 1s. 6d. to the Rupee	506·45	505·36	511·60
Total Interest-bearing obligations ...	1,213·63	1,211·84	1,223·97
Interest-yielding assets held against the above obligations—			
(i) Capital advanced to Railways ...	750·73	756·75	757·20
(ii) Capital advanced to other Commercial Departments.	23·75	21·89	22·55
(iii) Capital advanced to Provinces ...	163·64	173·04	176·72
(iv) Capital advanced to Indian States and other interest-bearing loans.	20·29	20·92	21·20
Total Interest-yielding assets	958·41	972·60	977·67
Cash, bullion and securities held on Treasury account.	41·42	35·69	44·79
Balance of total interest-bearing obligations not covered by above assets.	213·80	203·55	201·51

(*a*) These figures represent the nominal amounts of loans outstanding and also include comparatively small amounts of expired loans which do not bear interest.

(*b*) The figures represent those portions of provincial balances which bear interest either because they form part of the old Famine Insurance Fund or the Present Famine Relief Fund or because they have been placed with the Government of India on fixed deposit.

The soundness of India's debt position is clear. It will be seen that India's unproductive debt has been reduced by about Rs.2 crores during the year after allowing for a loss on sales of silver. A study of the table shows that India possesses interest-yielding assets plus cash, bullion and securities held on Treasury account amounting to Rs.1022·46 crores to set against her total interest-bearing obligations of Rs.1223·97 crores, leaving an uncovered balance of only Rs.201·51 crores or 16·4% of the whole. It will be granted that the debt position of India rests on a very firm basis when it is appreciated how large a proportion of the debt is invested in railways and irrigation projects; both being magnificent assets which, when economic conditions improve, will again show increasing returns and provide a growing contribution to the relief of taxation.

The Year's Loans.—The Controller describes the Government of India's public borrowings during the year as follows :—

" **The Rupee Loan.**—The new loan took the form of a 3½ per cent. issue liable to income-tax. The loan is repayable at par not later than the 15th November, 1950, and not earlier than the 15th November, 1947. The loan consisted of two sections, namely, " Cash " and " Conversion ". Subscriptions to the " Cash Section " were payable in the form of :—

(i) cash;

(ii) treasury bills maturing not later than the 10th May, 1933, accepted at their face value;

(iii) securities of the 4% conversion loan of 1916-17 and 5% War Loan, 1929-47 accepted at par; 5% Bonds, 1933, and 6% Bonds, 1933-36, accepted at a premium of Annas 12%;

the issue price being reckoned at Rs.96%. Subscriptions to the " Conversion Section " were in the form of the following securities, namely, 4½% Bonds, 1934, 5% Bonds, 1935 and 6½% Treasury Bonds, 1935. For every Rs.100 (nominal value) of any of the above three loans tendered for conversion, the applicant received Rs.100 (nominal value) of the new loan, and in addition a cash bonus of Rs.6-2, Rs.8 and Rs.11-8 respectively according as the conversions were of the 4½, 5 or 6½% loans.

The loan opened for subscriptions on the 28th April, 1933. The loan notification provided that the " Cash " and " Conversion " sections of the loan should not remain open after the 29th April and the 2nd May, 1933, respectively, but that either section would be closed without notice as soon as it appeared that the subscriptions to it had reached a total of Rs.15 crores (nominal) approximately. It was also provided in the notification that if subscriptions to the " Cash " section happened to exceed the above limit, partial allotment would be made and that, in making such allotment, subscriptions in the form of securities of the 4% Conversion Loan of 1916-17 would be accepted in full and preference would then be given first to subscriptions in cash and next to those in the form of Treasury Bills over subscriptions in the other forms. The " Cash " section of the loan was closed within about two hours from opening and applications in the form of securities of the 4% Conversion Loan of 1916-17 and Cash were accepted in full, the applications in other forms being rejected. The " Conversion " Section of the loan was closed on the 2nd May. At the time of announcement of this loan, the securities market was firm and money conditions were very easy. The loan met with a very good reception, and, in the few days intervening between the announcement and the opening of the lists, long term securities registered an appreciable rise, 3½% paper and the

4% Loan, 1960-70, recording an improvement of nearly 1½ points. The new loan was quoted at a premium even before the lists opened, and, as was anticipated, the cash sections of the loan had to be closed in less than a couple of hours. Immediately after the closing of the lists to cash subscriptions it became apparent that a certain amount of market stagging had taken place and that a number of subscribers who had banked on a partial allotment were left with a larger quantity of the new loan than they were prepared to hold. Some of this paper was thrown on the market and these forced sales not only caused the premium to disappear but also led to the new loan being offered at a discount. The resultant nervousness had the effect of slowing up subscriptions to the conversion section which was not closed for some days. At the close of the financial year the price of this loan reached Rs.97-12, i.e., a premium of Rs.1-12 over its issue price.

The total amount of loan issued was 30,82 lakhs, of which 15,60 lakhs were subscribed in the cash section (10,07 lakhs in cash and the balance by tender of 1916-17 loan) and 15,22 lakhs in the conversion section. As a result of the above conversion operations Government have been able to reduce their liabilities for the redemption of loans during the next two years by Rs.15,22 lakhs and, in addition, have converted Rs.5,31 lakhs of the 4% conversion loan of 1916-17, which would otherwise have had to be repaid in cash during the year. The table below shows the balances before and after the conversion operations of the various loans mentioned above:—

Particulars of loan.	Amount outstanding before the issue of the loan.	Amounts converted into the new loan.	Balance outstanding.
	Rs. (lakhs).	Rs. (lakhs).	Rs. (lakhs).
4 % 1916–17 Loan	9,90	5,31	4,59
4½ % Bonds 1934	25,98	12,97	13,01
5 % Bonds 1935	12,83	1,40	11,43
6½ % Bonds 1935	16,95	85	16,10

The loans notified for discharge and the amounts discharged during the year 1933-34 are noted below:—

Particulars of the loan.	Date of discharge.	Amount outstanding after the conversion operation.	Amount discharged during the year.
		Rs. (lakhs).	Rs. (lakhs.)
1. 5 % War Loan 1929–47	15th May 1933	4,13	4,03
2. 4 % Conversion Loan 1916–17.	1st July 1933	4,59	4,54
3. 6 % Bonds 1933–36 ...	15th Aug. 1933	8,96	8,81
4. 5 % Bonds 1933 ...	1st Sept. 1933	4,30	4,22
Total ...		21,98	21,60

Sterling loan.—Flotation: The first loan was a 4% Stock, 1948-53. It was issued in May, 1933, at 97½% for a total amount of £12,000,000.

The stock is repayable at par on the 15th December, 1953, but either the whole of the stock or part thereof is redeemable by drawings or otherwise at par an any half yearly interest date after the 15th December, 1948, with three calendar months' previous notice. There were 6,984 applications for a total amount of £47,140,900 stock. Applications for amounts up to £300 stock received £100 and larger applications received allotments of 25%. The next loan took the form of a 3½% Stock, 1954-59, issued in November, 1933, at 97% for a total amount of £10,000,000. The stock is repayable at par on the 15th December, 1959, but the stock is redeemable in whole or in part at par by drawings or otherwise on any half yearly interest date after the 15th December, 1954. There were 5,474 applications for a total amount of £18,644,300. Applications for amounts up to £200 Stock were allotted in full, £300 and upwards received partial allotment; £1,000 receiving £600 and above £1,000 about 52·23%.

The 6% Bonds, 1933-35 and 1933-34, the outstanding balances of which were £2·6 millions and £10 millions respectively were repaid on the 15th June and 15th December, 1933.

The Government of the Punjab floated a loan in August in the form of 4% Bonds, 1948, amounting to Rs.3¼ crores of which 1¾ crores were subscribed in cash and the balance by tender of their 6¼% Bonds, 1933. The balance of 1933 Bonds left after the conversion was repaid in October.

The Indian Budget.—The Honourable the Finance Member in introducing the budget on the 27th February, 1934, presented the following tables, which summarise the position under each of the main heads of revenue and expenditure :—

Revenue.

——	1. Budget, 1933/34.	2. Revised, 1933/34.	3. Budget, 1934/35.	Difference between 3 and 1. Better + Worse —	Difference between 3 and 2. Better + Worse —
	Rs. (lakhs).	Rs. (lakhs).	Rs. (lakhs).	Rs. (lakhs).	Rs. (lakhs).
1. Customs	51,25	46,87	44,62	— 6,63	— 2,25
2. Taxes on Income...	18,06	17,13	17,25	— 81	+ 12
3. Salt	8,75	8,55	8,73	— 2	+ 18
4. Opium	1,20	1,59	95	— 25	— 64
5. Other principal heads.	1,90	1,86	1,82	— 8	— 4
6. Interest	1,82	1,59	1,86	+ 4	+ 27
7. Civil Administration.	83	78	78	— 5	...
8. Currency	1,39	77	88	— 51	+ 11
9. Mint	36	46	39	+ 3	— 7
10. Civil Works ...	21	24	24	+ 3	...
11. Miscellaneous ...	57	68	56	— 1	— 12
12. Extraordinary ...	...	36	...	...	— 36
Total Revenue ...	86,34	80,88	78,08	— 8,26	— 2,80

Expenditure.

—	1. Budget. 1933/34.	2. Revised. 1933/34.	3. Budget. 1934/35.	Difference between 3 and 1. Better + Worse —	Difference between 3 and 2. Better + Worse —
	Rs. (lakhs).	Rs. (lakhs).	Rs. (lakhs).	Rs. (lakhs).	Rs. (lakhs).
1. Opium	57	71	42	+ 15	+ 29
2. Other direct demands.	3,61	3,58	3,60	+ 1	— 2
3. Irrigation (net) ...	5	4	6	— 1	— 2
4. Posts and Telegraphs (net).	61	56	18	+ 43	+ 38
5. Interest on ordinary debt (net).	1,16	...	1	+ 1,17	+ 1
6. Interest on other obligations.	9,63	9,66	10,35	— 72	— 69
7. Civil Administration.	9,59	9,58	9,59	...	— 1
8. Currency and Mint	64	61	66	— 2	— 5
9. Civil Works ...	1,94	2,07	2,02	— 8	+ 5
10. Miscellaneous ...	4,12	4,26	4,32	— 20	— 6
11. Defence (net) ...	46,20	44,42	44,38	+ 1,82	+ 4
12. Miscellaneous adjustments.	1,00	1,00	1,01	— 1	— 1
13. Extraordinary ...	9	10	3	+ 6	+ 7
Total expenditure (excluding Provision for Reduction and Avoidance of Debt).	79,21	76,59	76,61	+ 2,60	— 2
Reduction and Avoidance of Debt.	6,88	3,00	3,00	+ 3,88	...
Total Expenditure	86,08	79,59	79,61	+ 6,48	— 2
Total Revenue less Expenditure.	+ 25	+ 1,29	— 1,53	— 1,78	—2,82

Sir George Schuster added that—

> "We expect to close the current year, after providing Rs.3 crores for debt redemption, with a surplus of Rs. 1,29 lakhs which we propose to transfer to a special fund for earthquake relief measures. For next year, basing my comparison on the net figures of revenue and expenditure, our position will be Rs.2,82 lakhs worse, that is to say, Rs.2,80 lakhs worse as regards revenue (which is more than accounted for by the falling-off in sugar import duties, the other differences offsetting each other), and as regards expenditure Rs.2 lakhs worse. In order therefore to provide an even balance for 1934-35, it is necessary to find means of improving the position to the extent of Rs.1,53 lakhs."

The Finance Member then outlined his proposals for an excise on factory manufactured sugar yielding Rs.1,40 lakhs, additional tobacco duties Rs.30 lakhs, silver duties Rs.4 lakhs, which—less the loss of Rs.5 lakhs on the abolition of the export duty on raw

hides—were expected to produce a net improvement in revenue of Rs.1,69 lakhs, thus covering the deficiency and leaving a small surplus of Rs.16 lakhs.

Modified Import Duties.—From the standpoint of the United Kingdom exporter the alterations of major importance were in respect of tobacco and silver. With effect from the 29th March, 1934, the revised rates of duty on tobacco were :—

> Tariff Serial No. 28/37A. Cigarettes.—25% ad valorem and in addition either Rs.8/2/- per thousand or Rs.3/4/- per pound, whichever is higher.
>
> Tariff Serial No. 29/221. Unmanufactured Tobacco.—Standard Rate Rs. 3/4/- per lb. Preferential rate if the produce of a British Colony, Rs.2/12/- per pound.

So far as silver is concerned, with effect from the 28th February, 1934, the duty on silver bullion and coin not otherwise specified and silver sheets and plates which have undergone no process of manufacture subsequent to rolling, assessable under Tariff Serial No. 107A/43BB was reduced from 7½ annas per ounce to 5 annas per ounce.

The Railway Budget.—The Honourable Member for Commerce and Railways reviewing the financial year 1933-34 stated that the receipts, according to the revised estimates, were expected to amount to Rs.88¾ crores while expenditure including depreciation would remain at about the anticipated figure of just over Rs.64 crores, thus bringing the net traffic receipts to Rs.24¾ crores. Interest charges would amount to Rs.32½ crores, the deficiency for the year would aggregate Rs.7¾ crores, including the loss of Rs.2 crores on strategic lines, and this would again be met by a temporary loan from the Depreciation Fund, which would show a balance at the end of the year of Rs.11¾ crores, as against Rs.12 crores at the beginning of the year. The traffic receipts in 1933-34 were over Rs.2 crores or 2½% above those of the previous year, while goods earnings were expected to be nearly Rs.3½ crores or about 6% above earnings in 1932-33. Sir Joseph Bhore added that " the fact that the increase in traffic has been general and has not been confined to any particular commodity is of considerable significance as affording some sign of a general revival of trade."

The budget for 1934-35 anticipates total receipts from State lines of Rs.91¼ crores and total expenditure including depreciation of Rs.64½ crores. With interest charges at Rs.32 crores, the total deficiency will be approximately Rs.5¼ crores and a further loan of this amount from the Depreciation Fund will leave that fund in credit to the extent of Rs.11½ crores at the end of the year as compared with Rs.11¾ crores at the beginning of the year. An increase in traffic receipts is anticipated to the extent of Rs.2½ crores, an improvement of 3% on the figures for 1933-34—as the Railway Member stated—" The steady upward trend in our goods earnings this year justifies us, we believe, in the hope that at last

we are fairly on the road to recovery, though it would be rash to anticipate any rapid progress as yet along that road."

Sir Joseph Bhore summarised the position very clearly in the following terms :—

"In presenting the budget estimates for the current year, I ventured to lay some emphasis on what I held to be the undeniable strength and soundness of the financial position of Indian railways notwithstanding the deficits that have been experienced since 1931-32. The results of 1933-34, so far as we know them at present, have, if anything, confirmed me in that view. Taking the period of eleven years beginning from 1924-25 and ending 1934-35, we find that the first six years were a period of prosperity and the following five years have been otherwise. The crescendo of deficits began in 1930-31 with 5 crores, grew to 9¼ crores in 1931-32 and reached its height in 1932-33 with a figure of 10¼ crores. We hope that that constitutes the peak, for we expect our deficit to be 7¾ crores in 1933-34 and about 5¼ crores in 1934-35. A naked statement of these deficits is, however, calculated to give an entirely inaccurate impression of the real financial position. I will endeavour to convey what I think is a more correct picture by stating the financial position of the past three years from a somewhat different angle. Taking our commercial lines alone for the present, it will be seen that even in 1932-33, which may be regarded as the worst year during this period, our net revenue from all sources amounted to 23¼ crores and during that year we put by to the depreciation reserve a sum of 7¼ crores more than we actually required to withdraw for our current expenditure on renewals and replacements. Even in the worst year of this dark period it will thus be seen that our earnings only fell short, by one crore, of the amount, viz., 31¼ crores, required to pay the full interest on the Capital at charge. In the following two years, viz., 1933-34 and 1934-35, our estimate of net revenue from all sources is 25¼ and 27¼ crores respectively. If payments to the depreciation reserve were confined to what was needed to meet our urgent and necessary requirements, our net revenue in each of these two years would be over 32 crores and would exceed the sum necessary for our interest charges on commercial lines by a crore and a half.

Including strategic lines, against our deficits amounting to 13 crores in the two years referred to, must be set the additional appropriations amounting to 12½ crores that we are making to the depreciation account after meeting not only all the normal expenditure on renewals and replacements debitable to the fund during these years, but very heavy abnormal expenditure of 1¼ crores to repair earthquake damages and the damages to the Hardinge Bridge caused by the vagaries of the Ganges. These figures, I hope, afford ample justification for the opinion I have expressed as to the intrinsic strength of the financial position of the Indian Railways."

Capital Works Programme in 1934-35.—The Railway Member outlined the new capital programme as follows :—

"Some comment is necessary on our programme of works expenditure for 1934-35 which, though less ambitious than the programmes which Railways were accustomed to in the pre-depression days, is still considerably more extensive than those of the last two years. We propose a total expenditure of just over 14 crores, of which we expect to find three quarters of a crore by further reduction in stores balances. Except one small new line of five miles costing 3 lakhs on the South Indian Railway, to which we are committed as part of the arrangements made when the Tanjore District Board Railway

was transferred to Government some years ago, the small expenditure of 11 lakhs provided is merely to complete lines started long ago. There are a few projects, like the Bombay-Sind Connection and the Pollachi-Vananturai line in South India, the prospects of which are under examination, but our examination has not yet reached a stage at which we can arrive at a definite conclusion in regard to their remunerativeness. We have not, therefore, felt justified in asking the Assembly to provide funds for them. We hope to complete our examination in the course of the next few months. If we find that these projects are likely to be remunerative under present conditions of cheap money and low prices of material and desire to start construction during the next working season, we shall take steps to place our proposals before the Standing Finance Committee for Railways and ask the Assembly for the requisite additional grant. As regards open line works, our programme includes 4¾ crores for track renewals, and 3¼ crores for rolling stock in addition to 1½ crores for works in progress. The amount provided for new works is under 4½ crores. Of this, a sum of about 1¾ crores is required for repairs and additions to the protection works of the Hardinge Bridge to which I have already referred and for repairing earthquake damages. As I have mentioned, it is our intention not to charge directly to current revenues any expenditure on these items, but to debit initially to the depreciation fund whatever is not chargeable to capital, and repay this amount from revenue by annual instalments of 15 lakhs. Another item of importance is the remodelling of part of the Jamalpur Workshops on the East Indian Railway where, as a measure of economy and efficiency, it was intended to concentrate heavy repairs to engines. This was originally initiated as a remunerative project, but it has since been rendered imperative by the demolition of some of the existing shops by the recent earthquake."

Rolling Stock Programme for 1935-36.—On the 14th June, 1934, the Standing Finance Committee on Railways sanctioned a programme for additions and renewals introduced by the Financial Commissioner in the following terms :—

" *(In Lakhs of Rupees).*

	Capital.	*Depreciation Fund.*	*Total.*
Locomotives ...	20·35	44·52	64·87
Boilers	2·08	36·39	38·47
Carriages	45·78	72·17	117·95
Wagons	13·91	39·68	53·59
Total	82·12	192·76	274·88

The original programmes submitted by the Agents provided for an expenditure of 178 lakhs on capital account and 388 lakhs on depreciation fund account, making a total of 566 lakhs, including Rs.225 lakhs for 5,240 broad gauge general service wagons which we have for the present not included in the above programme. The sanctioned provision for rolling stock in the current year (1934-35) is Rs.326 lakhs (capital 61 lakhs, depreciation fund 265 lakhs) of which 123 lakhs are for broad gauge general service wagons. These programmes provided mainly for the replacement of locomotives, boilers, carriages and wagons which have outlived their economic lives and on which further repair and maintenance charges are prohibitive. As the Committee are aware, we have, for the past few years, been restricting capital expenditure as far as possible. This was due not merely

to the financial situation but to the fact that owing to the fall in traffic and to the improved arrangements for better utilization of existing stock, most railways could do with much less than their authorized stock and it was not essential to replace stock as soon as it was condemned. The time is however arriving and in some cases has already arrived when renewals and replacements will have to be undertaken on a substantially larger scale.

It is proposed to purchase 43 new broad gauge locomotives on renewal account estimated to cost Rs.32·67 lakhs. Fourteen of these locomotives are required by the E.I.R., 17 by the N.W.R. and seven by the S.I.R. The programmes include two Diesel electric locomotives costing about 6 lakhs for the North-Western Railway.

It is now proposed to try locomotives of a higher horse power and consequently greater cost than was originally contemplated. They also include 14 XT class broad gauge engines for the East Indian Railway and 15 XT class broad gauge locomotives for the North-Western Railway for running fast shuttle branch line services, which it is expected will be of great assistance in dealing with road motor competition.

Considerable economies in operation and expenditure on new locomotives are confidently expected from the intensive use of locomotive power. Recent progress in this direction has indicated that modifications in the design and detailed fittings of standard engines are essential if pooling is to be successful. Accordingly, two XB class engines are proposed for purchase by the Great Indian Peninsula Railway in the design and construction of which will be incorporated improved fittings specially suitable for extended running with changes of crews. These are being purchased as an experiment and the experience gained with these will be specially useful if it is decided to construct locomotives in India.

It is also proposed to permit the Bombay, Baroda and Central India Railway to purchase a broad gauge Diesel shunting engine for experimental purposes to ascertain what is the best and most economical type of locomotive power, for the railway anticipate that they will be faced with a fairly heavy locomotive renewal programme in future years.

On the metre gauge railways the accepted requirements are as follows:

Railways.	*Number.*	*Cost. Rs. lakhs.*
Assam Bengal	6	3·30
Bengal and North Western	12	6·17
Bombay, Baroda and Central India ...	13	11·00
Rohilkund and Kumaon	4	2·37
South Indian	9	2·53
Total	44	25·37

Surplus steam locomotives released from the main electrification of the Great Indian Peninsula Railway are still available on that railway and arrangements are being made to transfer more engines from that railway to the East Indian and North-Western Railways, thus ensuring a better and more economic utilization of existing locomotive power.

As regards coaching stock, the total provision agreed to amounts to Rs.118 lakhs, out of which about 9 lakhs represent expenditure on additions, which is largely made up by the South Indian Railway obtaining additional carriages costing 3 lakhs to meet additional traffic demands resulting from the development of Cochin Harbour, where

the steamer from Colombo and the West will touch, and additional special vehicles required by the Eastern Bengal Railway.

No provision has been made for broad gauge general service wagons in 1935-36. This is still under the consideration of the Railway Board. The expenditure on wagons to which the approval of the committee is now solicited is limited to departmental and special non-pooled types of broad gauge wagons together with metre gauge goods stock. It is proposed to purchase 290 broad gauge wagons, other than pooled stock, at an estimated cost of Rs.20·29 lakhs, and 915 metre gauge wagons at an estimated cost of Rs.33·00 lakhs."

Road Development in India.—The following note on the progress made in co-ordinating road development throughout the country has been courteously supplied by Mr. K. G. Mitchell, C.I.E., M.Inst.C.E., Road Engineer with the Government of India :—

The financial year 1933-34 was the last year of the first probationary quinquennium of the Road Development Account. (By a resolution adopted by both Houses of the Indian Legislature on the 21st April, 1934, the account has now been continued without any specified period, i.e., it is permanent until repealed.) The revenue credited during the year amounted to about Rs.100 lakhs (final audited figures not yet available) or to nearly Rs.510 lakhs during the five years. This report deals with a total of nearly Rs.460 lakhs accrued up to the 30th September, 1933. After deducting 10% for the Reserve, the amount available for distribution to Governors' Provinces, Administered Areas and Indian States was Rs.414 lakhs. Of this Rs.344 lakhs was distributed among the ten Provincial Governments as shown below. The balance represents the share of Minor Administrations, Indian States and a small margin, about Rs.7 lakhs, for the adjustment of possible discrepancies in apportionment.

Province.	Share allotted to end of March, 1934, in respect of revenue up to Sept., 1933.	Expenditure to end of 31st March, 1934.	Amount diverted as loan, (treated as expenditure) for ordinary maintenance or for the completion of works in progress.	Balance on 31st March, 1934.
	Rs. (lakhs).	Rs. (lakhs).	Rs. (lakhs).	Rs. (lakhs).
Madras	61·62	48·22	—	13·40
Bombay	75·10	42·16	16·00	16·94
Bengal	60·21	31·12	—	29·09
United Provinces ...	25·01	8·19	—	16·82
Punjab	30·32	14·19	14·97	1·16
Burma	41·93	24·57	17·18	0·18
Shan States	3·52	2·76	—	0·76
Bihar and Orissa ...	15·48	9·39	—	6·09
Central Provinces ...	13·42	4·75	2·50	6·17
Assam	9·06	1·95	4·42	2·69
N.W.F.P.	8·32	4·36	—	3·96
	343·99	191·66	55·07	97·26

The corresponding expenditure in the ten Governors' Provinces up to March, 1934, was about Rs.192 lakhs. In addition to this, five of the local Governments were also permitted to borrow a sum of about Rs.55 lakhs from the account for the completion of previous development programmes, or for the ordinary maintenance of roads as a temporary interest free loan to be restored when their budgetary position improves. The balance available for expenditure by provincial Governments was about Rs.97 lakhs and this has been carried forward.

The position of the reserve for special works, research, intelligence and administration, is as follows:—

	Rs. Lakhs.	
A. Credits to end of September, 1933		55·39
B. *Debits.*		
	Rs. lakhs.	
(i) Administration	2·00	
(ii) Amount earmarked for grants for experiments and research	5·00	
(iii) Grants for special works	41·39	
Total	48·39	
C. *Balance*		7·00

The following events of a more general interest happened during the year. A conference of the representatives of local Governments, Railways and other transport interests, was convened to consider the Road-Rail problem and to discuss a policy of co-ordination and correlated development of various forms of transport. This conference was opened in April, 1933, by His Excellency the Viceroy, and as a result of three days discussions adopted eight resolutions. The Government of India then took up the work of examining the recommendations in the various resolutions and subsequently addressed local Governments on the various questions raised.

One of these resolutions recommended the continuance of the Road Account. This account derived from a special tax on petrol* was instituted in 1929 for a period of five years in the first instance, and has proved of considerable value in stimulating development. After full consultation with local Governments a new resolution† was accordingly introduced towards the end of the year in the Central Legislature, which while retaining the essential features of the present arrangement provided *inter alia* for an increase in the reserve to 15% from 10% to enable the Government of India to help the undeveloped provinces with more liberal grants; for the use of the Account when necessary on the maintenance of roads financed from it and on the service of loans raised for road development. It also recognised the pressing need for the improvement of all rural communications for the transport of agricultural produce and provided for expenditure on such roads, the previous intention having been to use the money more for fresh roads.

The Government of India have also had under consideration during this year the question of capital expenditure on road development as a means of adding to the economic equipment of the country as well as contributing in some measure towards improving the prevailing state of depression. This subject was considered at the Provincial Economic Conference in April, 1934. The continuance of the road account on a more permanent basis, and the provision for its utilisation on the

* An extra duty of customs and of excise of not less than 2 annas per gallon.

† A copy of this Resolution, adopted by both the Houses of the Indian Legislature on the 21st April, 1934, is available at the Department of Overseas Trade.

service of loans and possibly on subsequent maintenance and the present low rates for labour and material will, it is hoped, enable local Governments who have been addressed on the subject to move in the matter at an early date.

Another instance in which the Account has proved itself very useful is in the case of Sind. The Government of India were impressed with the fact that the full benefits that should result from the Lloyd (Sukkur) Barrage could not be achieved without adequate facilities for transport in the area irrigated. Accordingly after consulting the Government of Bombay, the Government of India deputed Mr. S. G. Stubbs, O.B.E., a Superintending Engineer of the Punjab to prepare a co-ordinated plan of road and rail development with the help of an officer of the North-Western Railway. The entire cost of this enquiry was borne by the Government of India from their reserve in the Road Account. The Report was not submitted before the end of the year under review.

Indian Joint Stock Companies in 1933-34.—*Flotations.*—The following table shows the position of registrations over a period of years :—

Year.	Companies registered.		Aggregate Authorised Capital.		Average authorised Capital per Company.
	No.	Index No. (pre-war year=100).	Amount.	Index No. (pre-war year=100).	
			Rs.		Rs.
1913–14 (pre-war)	356	100	66,91,53,000	100	18,79,000
1928–29	726	204	27,38,31,000	41	3,77,000
1929–30	839	236	62,55,18,000	93	7,46,000
1930–31(*a*) ...	731	206	21,55,62,000	32	2,95,000
1931–32	768	216	29,97,60,000	45	3,90,000
1932–33	1,247	350	30,99,88,000	46	2,49,000
1933–34	884	248	56,49,91,000	84	6,39,000

(*a*) Revised.

It will be remarked that the number of companies registered fell from 1,247 to 884 whereas the average authorised capital per company rose from Rs.249,000 to Rs.639,000 on account of the flotation of eight Navigation Companies with an aggregate authorised capital of Rs.24,47 lakhs and two companies coming under the head of docks, harbours, shipping, landing and warehousing with a total capital of Rs.500 lakhs. Increases in the authorised capital were noticeable under the following heads :—navigation (+ Rs.24,47 lakhs); docks, harbours, shipping, landing and warehousing (+ Rs.500 lakhs); Insurance, others (+ Rs.1,12 lakhs) and investment and trust (+ Rs.87 lakhs), while decreases in the authorised capital were noted under sugar (including jaggery) manufacture (– Rs.2,86 lakhs); tobacco (cigars, etc.) (– Rs.2,11 lakhs); Engineering (– Rs.1,02 lakhs) and life, fire and marine insurance (– Rs.90 lakhs). I would again point out that the amount of authorised capital is a very unsafe guide to the actual state of

affairs, as in the majority of Indian concerns the paid-up capital is only a small fraction of the authorised capital. Companies in India go to allotment on very small subscriptions.

Liquidations.—Four hundred and eighteen companies, with an authorised capital of about Rs.59 crores, having ceased work, went into liquidation during the year 1933-34.

Indian Working Class Cost of Living Index—Bombay.—In March, 1934, at the close of the financial year the average level of retail prices for all commodities taken into account in the statistics of a cost of living index number for the working classes in Bombay City, on the basis of July, 1914 = 100, was 94, which was two points lower than in the preceding month. The general index number is 99 points below the high-water mark of 193 reached in October, 1920 and 9 points below the twelve-monthly average for the year 1933. The articles included in the index are cereals, pulses, other articles of food, fuel and lighting, clothing and house rent. The articles have been given the relative importance which each bears to the total all-India aggregate expenditure. No allowance is made for any change in the standard of living since July, 1914.

(*All items: percentage increase or decrease compared with July,* 1914.)

——	1929.	1930.	1931.	1932.	1933.	1934.
	%	%	%	%	%	%
January	49	47	17	10	9	−4
February	48	44	13	10	6	−4
March	49	41	11	11	6	−6
April	48	40	11	8	1	−7
May	47	39	10	7	0	−6
June	47	40	9	7	4	−5
July	48	39	8	9	3	
August	49	36	8	9	3	
September	49	36	8	9	2	
October	49	31	8	9	0	
November	50	27	8	10	1	
December	50	21	9	10	−2	
Approximate yearly average ...	49	37	10	9	3	

Patents and Designs.—In his report for the calendar year 1933, the Controller of Patents and Designs states that the total number of applications for patents filed during the year was 954 as compared with 928 in 1932. Of these, 295 originated in India and the remaining 659 came from abroad. Applications numbering 266 claimed priority under the reciprocal arrangements with the United Kingdom and other parts of His Majesty's Dominions. A noticeable feature of the returns is the increase in the number of

applications made by Indians. The year showed a pronounced increase in the number of applications for the protection of inventions relating to structural steels, most of the inventions originating in India. As the Controller states—

> " This is in striking contrast with the paucity of such applications in the past and it is probable that the proposal to use special alloy steels for the construction of the new Howrah Bridge and the prospect of attracting a fair amount of major bridge building business in India in the near future are to a large extent responsible for opening the eyes of Indian inventors to a wide field in this direction and for giving them the necessary impetus for their investigation. The object of most of the inventions was to produce a steel having a higher tensile strength and yield point and possessing greater resistance to corrosion than British standard structural steel and at the same time being capable of manufacture on a commercial scale at a sufficiently low cost."

The number of applications dealing with inventions for advertising and displaying apparatus and the art of printing showed a marked increase. Mention should be made of a pioneer invention relating to a process of metal photography. This process is stated to have been demonstrated in Calcutta and has been hailed in the press as an entirely new art which has a great future. Another branch of industry which showed increased activity was that dealing with the making of pipes from cement, particularly by the centrifugal process. Petitions for the prolongation of the term of these pioneer patents relating to this process were filed during the year. The trend of inventions with regard to some of the more important industries is dealt with by the Controller in the following terms :—

> " **Electrical Industry.**—Inventive activity under this head decreased considerably. A large number of applications related to patents directed towards the perfection of apparatus for electrical discharges which could be used as lamps for domestic and other purposes. The ordinary incandescent lamp however continues to hold the field and a fair number of inventions related to it. These were concerned with mountings for filaments, anti-dazzle construction of the bulb itself, and the reclamation of old bulbs whose filaments have burnt out. The number of inventions relating to heating appliances showed a large fall. Inventions dealing with batteries were practically confined to dry cells used in pocket torch lights. One inventor attempted to evolve a metadyne transformer. This device is a direct current transformer for supplying a constant current at a variable voltage when supplied with a variable current at a constant voltage. The number of applications relating to wireless signalling and controlling showed some improvement and related to various aspects of wireless telegraphy such as concentration of radiated energy in one direction, securing freedom from disturbances and ' fading effects ', overcoming ' night effects ' in the reception of radio signals on aeroplanes, filter circuits adapted to give a response over a predetermined band of frequencies and a sharp cut-off on either side of the said band, frequency control devices, and the generation of oscillations so as to obtain greater stability as regards frequency and amplitude. One application related to television, while three applications, originating in India, had for their object improved coupling arrangements for vacuum tubes and more efficient amplification of small currents.

Agriculture.—The number of inventions increased by 20% and were largely concerned with manually operated harvesting appliances. Inventions for lifting water from wells by means of wind or animal power decreased by 50% but there was a striking increase in the number relating to the manufacture of tea. Indian inventors were mostly interested in tea-rolling and cutting machines while foreign applications related to the treatment of the leaf and its cooling and drying by regulating the flow and the condition of the air passing over the tea leaf.

Textile Industries.—The increased activity of recent years shows signs of falling-off. The number of inventions relating to spinning declined by nearly 20%, notably those concerned with the 'Charka' or hand-spinning wheel. Inventors from India and abroad have shown special interest in the formation of balls of silver on retractable arbor sections (spindles) so that when the balls reach a certain desired diameter, they are ejected and the commencement of a fresh ball is initiated automatically. Considerable attention was also devoted to the formation of bobbins from paper and like pulp instead of wood and to impregnating them with water-proofing substances for use in both dry and wet treatment of yarn along with bobbins. Inventions for looms decreased by more than 50%. There was a marked increase in the number of inventions dealing with sewing machines for securing a noiseless motion and for facilitating easy repairs or renewals in case of wear.

Transport.—This heading claims a large number of inventions each year. Applications for patents relating to railway vehicles fell from 18 to 11, mainly due to a fall in the number relating to buffers. The attention of inventors was directed to bogie frames for undercarriages, the objects aimed at being stronger frames with less weight of metal and increased economy and facility in manufacture. A large number of inventions originating in India were devoted to the means of securing rails upon sleepers and to preventing creep. There was a revival of activity in the field of inventions relating to road and motor vehicles. The provision of heat insulating construction for refrigerated vans, luggage carriers, etc., received attention. Steering-wheel mounting, chassis suspension and pedal control arrangements were also concerned. Of three inventions in the sphere of aeronautics, one related to a lifting arrangement for aeroplanes which would render the preliminary gliding unnecessary. The remaining two concerned the launching of air craft of high minimum flying speed. Great interest was shown by Indian inventors in the construction of folding and collapsing boxes for easy transport. One invention had for its object a frame and trestle arrangement for enabling two motor car chassis to be loaded in one wagon.

Engines and Power.—A revival of inventive activity is noticeable in respect of internal combustion engines. A majority of inventions had for their object the development of an atomizer or carburettor which would render possible the use of heavy oil power units. Attempts were also made to improve the efficiency of internal combustion engines by achieving a more homogeneous mixture of fuel and air in the carburettor as well as in the engine cylinder. Sparking plugs, pistons, rotary valves and cooling systems also received attention.

Building Industry.—Inventions deal mostly with floorings and roofings made by the use of hollow pre-cast elements supported on girders or by the application of protective elements on bituminous surfaces. Indian inventors have shown a keen interest in the fabrication of metal tanks for the storage of water, etc., by using interchangeable unit plates and standard bracings.

Health and Sanitation.—The construction of special rotary furnaces for the combustion of town refuse and the like received attention. The number of applications relating to devices for catching and destroying vermin increased by 200%. The art of food preparing and preserving came in for much attention. One Indian application related to the utilisation of non-edible seed cakes, such as those of 'hungay', 'mahua', castor and neem for preparing vegetable proteins.

As regards designs, 1,224 applications were filed during the year as compared with 1,223 applications in 1932. The number of applications which originated in India was 534 as compared with 412 in 1932. As compared with 1932, there was an increase of nearly 29·6% in the number of the design applications originating in India but the total number of applications remained practically steady. This increase in Indian applications is marked in the case of Bombay, which accounted for 253 applications against only 25 in 1932. Of these, as many as 217 were in respect of designs on textile goods and 28 were in respect of designs on various kinds of metal articles. As compared with 1932, there was an enormous increase in the number of applications for registration of designs in Class 14. Of 220 such applications, 146 were from the United Kingdom and 74 from India in respect of designs on shawls and saris. Textile designs came, as usual, mainly from the Calico Printers' Association, Ltd., who filed 586 applications during the year. 390 designs relating to piecegoods originated in India, 217 from Bombay, 130 from Bengal and 32 from Delhi. Two applications were received from Delhi in respect of embroidery designs."

A fifth edition of the Patent Office Handbook, containing the Indian Patents and Designs Act, 1911 (as amended up to the 1st July, 1930), the Indian Patents and Designs Rules, 1933, the Indian Secret Patent Rules, 1933, and detailed instructions for the guidance of inventors and others was published in the year under review.

Civil Aviation.—I am indebted to Mr. F. Tymms, M.C., Director of Civil Aviation in India, for a comprehensive note on the progress of Civil Aviation in India during 1933-34. The following paragraphs are reproduced from his report :—

REGULAR AIR SERVICES.

Evidence of the growth of interest in aviation in India is provided by the development of regular air services. The first in importance is the extension of the London-Karachi air service across India to Singapore, with joint operation by Imperial Airways, Ltd., and an Indian Company, Indian Trans-Continental Airways, Ltd. This service replaced the Karachi-Delhi air mail service. Following this, Indian National Airways, Ltd., established a weekly service between Calcutta and Rangoon, thus making, with the main trans-India service, a twice weekly service between Calcutta and Rangoon. A daily service was also established by Indian National Airways between Calcutta and Dacca.

The total mileage of air services in operation in India on the 31st December, 1933, was 4,780, compared with 4,260 at the end of 1932. These figures exclude the air route lying outside India, in which an Indian operating company participates, namely, the Rangoon-Singapore section of the Australian route. The total mileage of air services, either operated by Indian companies or in which Indian companies participate, is now, therefore, 5,180 compared with 2,010 at the end of 1932.

A feature of the development which has taken place, which cannot be passed over without notice, is the increase in night flying on the trans-India route. While regular flying through the night is not yet scheduled there is an increasing tendency to schedule early morning departures, involving considerable periods of night flying with the first landing in daylight. Again, while in the past, a delayed service was limited in its capacity to make up time by daylight hours, 1933 has seen a great extension of the practice of flying on well into the night, and on certain occasions all night. This is reflected in better punctuality returns. The trans-India air route is not yet, even in part, organised for night flying, but the provision of a few items of lighting equipment at some of the principal aerodromes has contributed. The increase of night flying has thrown a corresponding extra strain on the wireless, meteorological and aerodrome organisation, a matter of no small moment on a route of 2,500 miles in length.

NEW COMPANY ORGANISATION.

In order to understand the developments which have taken place in air transport services in India during the year 1933, it is necessary to explain the new company organisation, in which arrangements for the operation of the trans-India air service are linked with the development of internal air services.

Indian Trans-Continental Airways Ltd.—The fundamental basis of the organisation lies in the arrangements made with His Majesty's Government in the United Kingdom and Imperial Airways Ltd., for the extension of the main London-Karachi air service across India from Karachi to Singapore, as a link in the England-Australia air service which is being organised. Indian Trans-Continental Airways Ltd., was formed as an Indian company with a capital of Rs.10 lakhs. The company is a private company, in which the shares are held by the Government of India, 24%, Imperial Airways Ltd., 51% and Indian National Airways Ltd., 25%. The agreement covering the operations provides that this company will operate, alternately with Imperial Airways, a weekly air service from Karachi to Singapore, in continuation of the London-Karachi service. The fleet of the two companies is homogeneous and the technical control and management of the two companies is combined. The sphere of operations of Indian Trans-Continental Airways is confined to co-operation with Imperial Airways Ltd. in the main trans-India air service. The company is controlled by a Board of Directors established in India, of whom the majority are Indians. The Directors are nominated as follows:—

By the Government of India	1
By Indian National Airways Ltd.	2
By Imperial Airways Ltd.	4

In addition to the Government Director, the Director of Civil Aviation also attends meetings of the Board as a representative of the Government of India. The period of operation of the agreement terminates on the 31st March, 1939.

Provision has been made for the engagement and training of Indian personnel in all branches of the service operated by Indian Trans-Continental Airways. In actual fact, a number of Indians is employed by both companies in India and elsewhere. Provision has also been made whereby the technical advice of Imperial Airways is available in the establishment of feeder services by Indian National Airways.

Indian National Airways Ltd.—The company has been established to participate as a share-holder in Indian Trans-Continental Airways, and to develop feeder and other internal air services in North India. It is registered in India with an authorised capital of Rs.30 lakhs. The

initial capital has been privately subscribed from sources representing widespread interests in India. The establishment of the company is due to Messrs. Govan Bros. Ltd. of Delhi, who act as Managing Agents. In addition to a number of Indian interests, a technical nucleus for the company is provided by the participation of India Air Survey and Transport Ltd., Dum Dum, Bengal, a company which has had long experience of air survey and other operations in India, and to whose participation the developments in Eastern Bengal and Burma, referred to elsewhere, are due. A further technical nucleus in the company is provided by the participation of Air Work Ltd., of Heston, Middlesex, who act as the agents in England.

Under the arrangements for the establishment of Indian Trans-Continental Airways, Indian National Airways act as the principal agents in India and Burma for both Imperial Airways and Indian Trans-Continental Airways.

The Madras Air Taxi Service.—Another new operating concern established during the year 1933 is due to the initiative of Raja I. V. Krishna Row and Mr. I. V. Bhujanga Row, who operate under the name of the Madras Air Taxi Service, their initial aim being the operation of an air-taxi service and the establishment of the Calcutta-Madras service referred to later in this report.

INDIAN INTERNAL SERVICES.

Karachi-Bombay-Madras Air Mail Service.—While the expected extension of this air service to Colombo did not take place owing to difficulties experienced in the provision of an aerodrome in Ceylon, the success attending the operation of the service between Karachi and Madras exceeded expectations.

The service achieved a regularity of 100% and a punctuality almost equally good during the year 1933. On no occasion did the service fail to make a connection at Karachi with the west-bound Imperial Airways service.

A very great increase in the air mail loads carried on the service took place during the year. The service operated only during a part of the previous year and annual totals cannot therefore be compared, but the increase is illustrated by the figures for the first quarter and the last quarter of the year 1933. The total mail carried in the first quarter of the year was 3,918 lbs. The total mail carried in the fourth quarter was 8,906 lbs., an increase of 127% in nine months. A considerable part of this increase is attributable to the introduction by the Indian Posts and Telegraphs Department of a revised system of surcharges, which is referred to elsewhere. At the same time, a steady and continued increase in the load of mails in the southbound direction, that is mail originating abroad, testifies to the utility and growing popularity of the service. A few passengers and small quantities of freight were carried by the service, but this is an incidental feature and it remained essentially a purely air mail service.

The fleet of aircraft employed on the service at the end of the year consisted of two De Havilland Puss Moths and one De Havilland Fox Moth.

Karachi-Delhi Air Mail Service.—In accordance with the agreement with the Delhi Flying Club, the Karachi-Delhi air service was operated by that club with a De Havilland Gipsy Moth, until the inauguration of the Karachi-Calcutta section of the Australian route on the 7th July. The Delhi Flying Club and their air mail pilot deserve commendation for the regular operation of this service during a period of 18 months.

Calcutta-Rangoon Air Service.—On the 1st December, 1933, Indian National Airways established a weekly air service between Calcutta and Rangoon, intermediate between the services operated by Indian Trans-Continental Airways and Imperial Airways, thus providing a twice weekly service for passengers, mail and freight between Calcutta and Rangoon, as follows:—

	Indian National Airways.	*Indian Trans-Continental Airways.*
Calcutta-Rangoon	Tuesday.	Sunday.
Rangoon-Calcutta	Friday.	Tuesday.

The service operates via Chittagong, Akyab and Bassein. The time taken on the journey is approximately 9½ hours, which compares with the sea passage of 2½ days (3 days and 2 nights). The Indian Trans-Continental and Imperial Airways Service, it may be noted, while faster between Calcutta and Rangoon, stops only at Akyab. The service was inaugurated with Dragon Moth aeroplanes arrange to carry a crew of two (pilot and wireless operator) and five passengers or a total pay load of about 1,200 lbs. As a passenger service, the new service proved to be in considerable demand, though air mail and freight traffic was inconsiderable. During the first month the service carried 42 passengers. Up to the 31st March, 1934, the number of passengers was 133.

Calcutta-Dacca Air Service.—On the 1st December, 1933, Indian National Airways established a daily passenger, mail and freight service between Calcutta and Dacca. This service is of particular interest, as being the first daily air service established in India. The reason for the selection of this particular route lay in the belief of the promoters that the speeding up of communication with the jute districts of Eastern Bengal would prove of value to the public, and that the service would be in considerable demand. The railway system in Eastern Bengal is incomplete, on account of the unbridged Ganges and Brahamaputra rivers. Journeys therefore involve a combination of rail and river transport and, apart from speed, comfort is much impaired thereby. Apart from the important jute growing region around Dacca, the communications of both Chittagong and the tea districts of Assam are impaired by the lack of through rail communication. Should this daily air service prove successful, therefore, further developments in this direction are contemplated.

The service takes approximately 1½ hours in each direction; it is operated in both directions in the morning. The time taken by the rail and steamer journey from Calcutta to Dacca is 16½ hours.

Insufficient experience has been gained to show whether or not the service will be justified. During the first month 105 passengers were carried. Mail loads were regular but insignificant, while there was an interesting and increasing demand for freight space (mainly newspapers) from Calcutta to Dacca.

The service is normally operated by a De Havilland Dragon aeroplane, which, however, is occasionally relieved by a De Havilland Fox Moth, when traffic does not warrant the use of the larger machine.

Calcutta-Madras Air Service.—On the 10th February, 1934, the Madras Air-Taxi Service inaugurated an experimental twice weekly service between Calcutta and Madras, with halts at Puri, Vizagapatam and Bezwada (Gannavaram). It was decided to discontinue the service on the 31st March, 1934.

Projected Developments.—The projected extension of the Tata air service to Ceylon is, as referred to elsewhere, still under negotiation with the Ceylon Government.

Negotiations have been carried on with Indian National Airways, for the establishment of an air mail service between Karachi and Lahore. The conclusion was reached that, in present conditions, a passenger service could not be successfully operated on this route, and the negotiations were directed towards establishing a basis of agreement on which an air mail service could be operated. It proved impossible to bring the service into operation during 1933, but it is hoped that developments in this connection will take place during 1934.

Discussions have taken place with regard to the operation of a daily air service between Calcutta and Bombay.

EXTERNAL AND FOREIGN AIR SERVICES.

Imperial Airways' London-Karachi Service.—No changes of major importance in the operation of the service, route, time table or fleet took place during the year. In December, 1933, simultaneously with the extension of the air service to Singapore, the day of departure from Karachi was postponed from Wednesday to Thursday, with a correspondingly later arrival in London. On the speeding up of the service in April, 1934, the time table reverted to a Wednesday departure.

A considerable improvement in the punctuality of operation of the service was effected, as compared with the previous year. Out of 52 services operated to Karachi 45 arrived punctually, compared with 36 in the preceding year. The punctuality of the British service compares favourably with that of the other services.

The actual time taken by the service on flights eastbound and westbound between London and Karachi is shown below:—

Eastbound.		Westbound.	
No. of flights.	Day of arrival.	No. of flights.	Day of arrival.
45	7th	44	7th
4	8th	8	8th
2	9th	—	—
1	10th	—	—
52	—	52	—

In last year's report, it was remarked that the time saving as compared with the sea mail service was considerably impaired by the absence, except to south India, of internal air services in India. The establishment of the trans-India service during the year has gone a long way to remove this disability.

There has been an improvement, during the year, in the quantity of mail carried to and from India. The increase amounts to 27% in the inward direction and 29% in the outward direction. This corresponds with a general increase in the use of the British Empire air mail services. The weight of inward mails was 24·6 tons and the weight of outward mails 24·2 tons. It is significant that the loads of mail to and from India are now virtually equal, since the total charge, including postage on an air mail letter from India is still in excess of the corresponding charge from Great Britain.

Karachi-Singapore Service.—The arrangements made for the operation of the air service between Karachi and Singapore are detailed earlier in this section of the report. The first stage of the extension from Karachi to Calcutta was inaugurated on the 7th July, 1933. On the 1st October, the service was extended to Rangoon and on the 18th December from Rangoon on to Singapore. In the westward direction, the first machine departed from Singapore for London on the last day of the year 1933. From the date of the extension to Singapore till the end of the year under review (31st March, 1934), the service was operated to the following schedule:—

Eastward	...	Karachi.	Dep. Friday evening.
		Singapore.	Arr. Tuesday noon.
Westward	...	Singapore.	Dep. Sunday noon.
		Karachi.	Arr. Thursday morning.

From the 15th April, 1934, a speeded up schedule has been introduced, whereby machines leave Karachi on Thursday afternoon and arrive at Singapore on Sunday evening and in the opposite direction, depart from Singapore on Sunday morning and arrive at Karachi on Wednesday morning.

From its inauguration on the 7th July till the end of 1933, the service was operated with nearly 100% regularity, though from a variety of causes the service did not settle down to punctual running for some time.

From the 7th July to 31st December, 7,797 lbs. of mail was carried by the service in the eastward direction and 13,888 lbs. in the westward direction. Expressed in another way, a total transport of 12,870 mail-ton-miles, 160,040 passenger miles and 1,520 freight-ton-miles was effected.

There was a steady improvement of traffic during the six months of operation in 1933 which augurs well for the ultimate success of the service. The improvement is illustrated by the following figures:—

		July.	*December.*
Average load of mails per flight ...	lbs.	371	569
Total passenger-miles		13,220	52,175
Total freight-ton-miles		183	529

K.L.M. (Royal Dutch Air Lines) and Air France Services.—Again, no major developments in foreign air services to or across India have to be recorded. Both the Dutch service from Amsterdam to Batavia and the French service from Paris to Saigon were operated unchanged throughout the year.

It is not without significance to India that both these companies laid plans during the year for the provision of larger and faster aeroplanes. Both operated experimental fast flights and the K.L.M. introduced a new and speeded up time table. The time tables of the companies at the end of the year provided the following service:—

	Days.
Amsterdam to Karachi	5¼
Paris to Karachi	5¼

The number of flights carried out by the K.L.M. and Air France services across India during the year 1933 was:—

	Eastbound.	*Westbound.*	*Total.*
Dutch	52	53	105
French	52	52	104

It is of interest to note that a reorganisation of the French air transport companies was effected during the year, resulting in a single large company, which is known as Air France. In consequence, the concession to operate across India which was granted to the Air Orient, was transferred to Air France.

The concession, whereby the Dutch and French air services were used for the carriage of air mails from India to certain countries in the east did not result in a large volume of mails being so carried. Since December, 1933, when the British and Indian air service was extended to Singapore, all mails for countries served by that service have been so despatched and are no longer sent by the K.L.M. and Air France services.

IMPORTS AND EXPORTS BY AIR.

The year under review saw a further rise in the number of aircraft which cleared customs at the Indian air ports and the value of imports and exports by air.

The number of aircraft arrivals from abroad increased from 271 in 1932 to 316 and the number of departures for places abroad from 268 to 302.

The value of merchandise imported during the year was Rs.50,60,311 compared with a value of Rs.8,28,786 during 1932. About 60% of the merchandise imported consisted of diamonds. The imports of bullion and currency notes rose from Rs.33,766 in 1932 to Rs.1,77,335 in 1933.

The value of merchandise exported was Rs.44,206 against Rs.15,353 in 1932. The exports of bullion and currency notes dropped from Rs.24,58,563 to Rs.1,02,700.

AIR MAIL SURCHARGES.

The significance of air mail developments in India during the year 1933 cannot be appreciated without a reference to the change in the system of surcharges, which was made effective concurrently with the establishment of the first link in the trans-India service on the 7th July. Prior to that date, there had existed an additional surcharge for the carriage of outward foreign articles on any air service within India to the air port of departure ex India, namely Karachi. As an example, the surcharge on a ½ oz. letter to Great Britain, in addition to postage, was 6 annas from Karachi and 8 annas for carriage from a place on an air service in India. This principle had the effect of seriously limiting the use of Indian air services, and therefore militating against their development, as senders had the option of not paying the extra charge for internal conveyance by air. The general tendency with regard to air mail surcharges is gradually to establish flat rates over wider zones, following, for example, the change which took place some years ago in Europe when, in place of a number of complicated differences in surcharges from Great Britain to Continental countries, a flat rate of 4d. per oz. to any country in Europe was established. While the popular demand for the elimination of air mail surcharges cannot in present conditions be brought about, on account of the comparatively high cost of air transport, the reduction and simplification of air mail surcharges is an end which is being pursued.

On account of a revision of the system of settling air mail accounts with the British Post Office, resulting from the trans-India agreement, it was possible, not only to establish a flat rate of surcharge from any place in India and Burma to a particular destination abroad, but to do so by eliminating the internal air mail surcharge of 2 annas per ½ oz. letter. The air mail surcharge, therefore, became as from 7th July, 1933, 6 annas per ½ oz. letter from India or Burma to Great Britain, as compared with the pre-existing rate of 8 annas.

FLYING CLUBS.

Progress in the flying club movement was sustained. The flying returns show a total of 10,995 hours flown, as against 9,700 in 1932, an increase of three in the number of aeroplanes operated by flying clubs, but on the other hand, a considerable decrease (from 85 to 68) in the number of "ab initio" pilots trained. More flying was done by pilots undergoing advanced training for A1 and B licences, while probably licensed pilot members of the clubs used the aeroplanes more for their own pleasure and business; but, at the same time, part of the increase in flying hours is due to an increase in joy ride and taxi-flights taken by the public. During the year it was necessary to lay down certain general rules for the guidance of the subsidised flying clubs to prevent unfair competition in commercial operations with unsubsidised commercial concerns. The more important developments were the inauguration of a separate U.P. Flying Club and the resurrection of club flying in the Punjab, through the Northern India Flying Club.

MISCELLANEOUS FLYING AND COMMERCIAL ACTIVITIES.

Imports of aircraft and aircraft material.—The total value of the imports of aircraft and aircraft material into India during the year 1933 was Rs.8,18,174, compared with Rs.3,19,064 in 1932, the large increase being due to the import of Atalanta and Dragon aeroplanes for the fleets of Indian Trans-Continental Airways and Indian National Airways.

Air Survey and Photography.—Indian Air Survey and Transport, Ltd., Calcutta, continued their programme of air survey during 1933. Of a total of 268 hours flying compared with 182 hours during 1932, 220 hours were spent in photographic survey work. The area of vertical air survey photography was 2,560 square miles, compared with 877·5 square miles during 1932.

India Air Pageants.—India Air Pageants, Ltd., a company registered in Bombay by Captain C. D. Barnard and Flight Lt. A. H. Dalton, arrived in India in December to give a series of air displays. The company arranged to co-operate with the flying clubs in India. Displays were given at various centres in British India and in the Indian States. The venture has proved successful in that large crowds have been present at the displays and a large number of the public have availed themselves of the opportunity to take flights.

Bihar and Orissa Earthquake.—It is gratifying to record that India Air Pageants, Ltd., who were in Patna at the time, were able to render assistance during the earthquake disaster in Bihar and Orissa. Two members of the company, Messrs. Dalton and Palmer, flew immediately to Muzzaffarpur from Patna. Difficulty was experienced in landing at Muzzaffarpur owing to the damage done to the landing ground. As the town was cut off from outside communication, the pilots were able to allay the general anxiety to some extent, by conveying news from outside and carrying messages to Patna. Several photographs were taken and a fairly accurate account of the damage done was reported to the Government of Bihar and Orissa.

Radio Telegraphy and Telephony.—I am indebted to the Joint General Manager of the Indian Radio and Cable Communications Co., Ltd., for the following interesting note with regard to the development of wireless communications in India during the year :—

"**Cable and Wireless Services.**—During the year under report, i.e., 1933-34, the main activities of the Indian Radio and Cable Communications Co. Ltd., include the Wireless Beam Telegraph Services between

India and England and between India and Japan and the Cable Services from Bombay and Madras to various parts of the world. The total number of paid words sent and received through the Company's Telegraph Services during the year ended 31st December, 1933, were 22,052,983 as against 24,495,178 during the year ended 31st December, 1932. This drop in traffic was mainly due to continued trade depression and it is anticipated that revival in trade conditions in the near future will reflect an improvement in the traffic figures.

Since the merging of the wireless and cable interests in this country the unification of control has continued to be of great advantage to the telegraph using public as the traffic can now be handled more expeditiously than before.

Beam Service to Japan.—The Beam Telegram Service between India and Japan, which was opened to the public on the 11th January, 1933, has been working very satisfactorily. The total number of paid messages handled over this circuit during the year ended 31st December, 1933, was 125,235. As will be evident, this volume of traffic hardly calls for a 24-hours continuous service.

Beam Telephone Service.—Since the opening of the Beam Telephone Service, the results achieved have been very encouraging, although the service cannot yet claim to have attained the popularity expected. This is considered to be mainly due to the high rate of charge, viz. Rs.80s. for a three-minutes call between India and Great Britain, and the popularity achieved by the half rate calls on Saturdays—which were subsequently introduced—will perhaps bear testimony to the above statement. At present the service is restricted to four hours a day but by arrangement with the Government of India and the British Post Office, the Service can be opened on occasions outside the usual hours by arrangement.

During the period when gold was fluctuating, this Service was considerably used by the Banks and business people dealing in Exchange transactions.

One special feature for which this Telephone Service could be used, viz. utilising this channel for broadcasting United Kingdom programmes through the local stations in India, was referred to in the last year's report. The authorities concerned have so far not taken advantage of this facility in the above direction. However on the 13th December, 1933, by arrangement with the British Post Office and the British Broadcasting Corporation, a varied programme from the Bombay Station of the Broadcasting Service was relayed to the United Kingdom by means of the Beam Telephone channel. The speech of His Excellency Lord Brabourne, Governor of Bombay, who inaugurated this programme, and the other items, were successfully transmitted and could be distinctly heard in all parts of the United Kingdom. The running commentary on a typical Bombay street scene and especially the vivid description of the various street noises was a novel feature of this programme.

The telephone channel has also been made use of for the exchange of Christmas Greetings to all parts of the Empire.

During the year under review, considerable improvements have been effected in the trunk telephone lines in India and it is now possible to have direct telephonic communication from any important centre in India to practically any part of the world. The introduction of the Overseas link has speeded up the internal telephone system in India.

Point to Point Wireless Services.—During the year, short wave wireless transmitters have been installed at various headquarters for the Railway Board, which stations are giving complete satisfaction. Further developments are expected in this direction as the Railway Board have

found this system to be much more economical than the renting of land lines. Such short-wave stations if equipped with telephony also, would do away with the necessity of separate telephone lines between such points.

Wireless Beacons and Direction Finding Stations.—During the year under report, the Bombay Port Trust Authorities have installed a Marconi Wireless Beacon at Kennery Island which is giving every satisfaction, and from hundreds of observations which have been made the Beacon is proving of considerable benefit to shipping. It is anticipated that this first Wireless Beacon on the Indian coast will be the forerunner for several more such stations. Negotiations with regard to the installation of two more Beacons, one at Calcutta and one at Karachi, are proceeding.

Aircraft Services.—With the development of aerial navigation in India, wireless will play a very important part. The Tata Air Service are equipping two of their present machines with Marconi Aircraft apparatus for the use of Wireless Telephony with Madras, Santa-Cruz (Bombay) and Karachi Stations. It is anticipated that with the benefit to aerial navigation, great developments will be made both in installing aeroplanes with wireless equipment and suitably equipping Aerodrome Stations for Direction Finding and Meteorological purposes.

Public Address Equipment.—Consequent on the successful demonstrations carried out by the Company during the last few years, the demand for the use of the Company's Public Address Equipments is steadily increasing for public address functions of all kinds and also for band amplifications. Several complete sets ot Public Address Equipments which have been sold to the Indian States are giving every satisfaction.

Future Developments.—The Indian Radio and Cable Communications Co. Ltd. have been requested by various administrations to carry out tests with various countries, particularly Japan, Java, Malaya States, with a view to opening up further Beam Telephone Services. Arrangements are already in hand for carrying out such tests.

Another projected development is the use of the Wireless Beam Telephone Transmitter as a short-wave Broadcasting Transmitter, using an omni-directional aerial. By this means the local programmes from the Bombay Studio of the Broadcasting Service can be broadcasted to all parts of India and the world. Negotiations are proceeding to open this service in the very near future.

Apart from the inter-Continental telegraphic and telephonic services, there is a potential field for the development of Wireless in India. It is admittedly suited for Police outposts. Various Police Authorities are considering wireless proposals such as have been in operation for some time by the Malabar Police and the Burmah Police. The Bombay and Calcutta Police Authorities are also considering the utilisation of wireless for Police purposes on the lines already successfully operated by Scotland Yard.

With the development of commercial aviation in India, it is anticipated that considerable development will take place in the use of wireless for this purpose as it is essential that aerodromes and aeroplanes should be fitted with wireless for meteorological purposes. Negotiations in the matter are proceeding with the Aviation Authorities and the Aviation Companies concerned."

Broadcasting.—The Indian State Broadcasting Service with its two transmitting stations at Bombay and Calcutta continues to make steady progress. The hon. Member for Industries and Labour recently stated in the Assembly that in 1932-33 the total income

from the seven-eighths share of the Customs duties on wireless apparatus was Rs.2,44,000 while the budget estimate for 1933-34 Rs.2,55,000. In 1932-33 the expenditure at the Calcutta Station was Rs.1,03,903 and at the Bombay Station Rs.1,10,555, a total of Rs. 2,14,458. During 1930-31 and 1931-32 the service ran at a loss of Rs.1,65,710 and Rs.1,09,506 respectively, but during 1932-33 there was a profit of Rs.80,649. The accounts for 1933-34 are not yet available but it is expected that they will show a profit. On the 31st December, 1933, there were approximately 10,950 licences in India. Piracy is still rampant but, under the Wireless Telegraphy Act, 1933, inspectors are being appointed in certain areas whose duties would include the detection and prosecution of wireless pirates. Nine-tenths of the revenue from licences is credited to the service. Now that the service is on a self-supporting basis, the Government of India are formulating plans for a third main transmitting station at Delhi but it is doubtful whether this will be in operation before 1935. In addition to the two Government stations, the Madras Municipality is operating successfully a local municipal broadcasting service. The Madras Government are at the present time investigating the possibilities of the application of a similar scheme, on a larger scale, to the Madras Presidency and have secured the services of an expert of the B.B.C. to conduct the enquiry.

One of the most interesting developments of the past year has been the preparation for rural services in the villages of the North-West Frontier Province and the Punjab. In the former province a transmitter, lent by the Marconi Wireless Telegraph Co., Ltd., will be installed in Peshawar and specially designed simple receiving sets will be installed in about twenty villages within a 25 mile radius. There will be a two hours daily programme each morning containing news, commodity prices, advice on hygiene, animal husbandry, agriculture, music, recitations from the Koran, etc. This service will be purely experimental and the cost will be borne by the Local Government. If the experiment is successful, further transmitters will be erected at centres such as Mardan, Nowshera, Kohat, Bannu, Dera Ismail Khan and Abbottabad.

In the Punjab, estimates have been submitted to Government by the Commsisioner for Rural Reconstruction for a large scale experiment in rural broadcasting. A transmitter has been offered by the B.B.C. and its erection is proposed at Lahore. Receivers will be installed in selected villages within 20 or 25 miles of the transmitter. A two hours programme on six nights a week is suggested, half to two-thirds of which would be spent on entertainment and the rest on information, instruction, etc. The programme will be in broad Punjabee and will include songs, instrumental music, stories, dialogues, gramophone records together with commodity prices, news, and a limited amount of instruction on matters of importance to villagers. The scheme would be financed solely by

the Local Government but it is hoped that the villagers would be sufficiently interested to offer to pay for the service, preferably by a fee to include maintenance, service, etc. rather than by the purchase of the receivers. It is hoped to merge the experiment into a permanent broadcast system and the ultimate objective, as stated by the Commissioner, would be a transmitting station every 50 miles or so with land wires to central stations.

The potentialities for the extension of these rural services in India are illimitable. The central problem of expense, the difficulty of maintaining suitable programmes adapted to the wants of a largely illiterate body of listeners and the technical and mechanical obstacles in maintaining the receiving sets in remote villages will have to be overcome. On the other hand, the advantages to be gained by the " uplift " of the rural population are incalculable and there seems to be little doubt that these pioneer efforts will be persisted in and will be followed by other Provinces. United Kingdom manufacturers would do well to keep in touch with this movement through the medium of their local branches or agents as, in a few years time, the market for receiving sets is likely to expand considerably.

The Empire short wave service of the B.B.C. has been greatly enjoyed by an increasing number of listeners throughout the year. Receiving conditions throughout India are fairly good during the cold weather but, during the hot weather and the monsoon, static is very troublesome and no successful eliminator has so far been devised. There is said to be considerable day-to-day variation in the strength of signals from short wave stations and the unreliability of any single station is a handicap to the rapid development of short wave listening. On the other hand, the listener on short waves has the choice of a number of stations. There is probably no portion of the Empire where the broadcast of specially selected items of news, speeches, music and informative talks of all kinds is more keenly appreciated. The Empire wireless broadcast has opened up a new vista of amusement and instruction alike to Europeans and educated Indians. It is an Imperial link of the highest importance. No effort should be spared to make it as efficient as possible from the technical aspect and as interesting and instructive as it can be made from the point of view of the programmes transmitted.

The Kathiawar Ports and Cutch.—The rapid growth during the past few years of imports into India through the ports of the maritime States of Kathiawar has created problems which are engaging the serious attention of the Government of India at the present time and which it would be out of place to discuss in this report. These problems fall under four main heads :—

(1) The diversion of traffic from the port of Bombay and consequent heavy loss to vested interests established there.

(2) The serious loss of Customs revenue to the Government of India inasmuch as certain States, e.g., Bhavnagar, retain the customs revenue for their own use.

(3) The impossibility of ensuring that the present highly complex import tariff is fully enforced in the absence of trained Customs Appraisers with experience of the methods employed in British India of assessing goods under complicated headings such as the textile schedules.

(4) The difficulty of ensuring that there may be no evasion of duties, e.g., by smuggling over the land frontier in the case of Cutch.

In Chapter V, pages 240 to 242, will be found tables illustrating the rapid growth of the trade and its distribution, by countries of origin and by individual States. A statement is also included of the principal groups of commodities imported by this route.

The following are the States concerned, the names of their principal ports being given in brackets :—Cambay (Cambay), Cutch (Mandvi and Kandla), Baroda (Okha), Bhavnagar (Bhavnagar), Jangira (Jafarabad), Jungadh (Verawal and Mangrol), Morvi (Navlakhi), Nawanagar (Bedi Bandar) and Porbandar (Porbandar).

With the exception of Cutch these States levy sea customs duties at rates not less than those in force in British India. In practice, they levy the statutory Indian Customs Tariff. Cutch has its own Customs tariff but importation of dutiable goods from Cutch into British India by land is prohibited. Bona-fide business enquiries with regard to the conditions obtaining in these ports should be addressed to the Department of Overseas Trade, 35, Old Queen Street, London, S.W.1.

Reorganisation of Statistics and Scheme for a Census of Production.—Dr. A. L. Bowley, Professor of Statistics, University of London, and Mr. D. H. Robertson, M.A., Lecturer in Economics at the University of Cambridge, were appointed at the end of 1933 " to report on the existing organisation and range of statistical and other information bearing on the economic condition of India with special reference to the gaps which exist at present and the means of filling them. In particular—

" (*a*) to make recommendations as to the organisation of a central Statistical Department which, in addition to the collection of statistics can co-ordinate statistical enquiry and information for the whole of India,

(*b*) to consider the practicability and scope of a census of production,

(*c*) to consider the materials obtainable for measurement of national income and national wealth,

(*d*) to make recommendations as to the initiation or continuation of series of index numbers of prices, wages, production, etc."

They arrived in December, 1933, and spent three months in connection with the Government of India and in touring the principal cities and visiting typical Indian villages. Their report on " A Scheme for an Economic Census of India " was published in April, 1934, and can be consulted at the Department of Overseas Trade.

The cost of the investigations adumbrated in this Scheme is estimated to be roundly Rs.30 lakhs for the period of three years, 1935-1937, during which the necessary machinery would be set up and the investigations brought to a conclusion. The scheme is now being considered by the Government of India in conjunction with their other projects for economic planning.

Economic Planning.

(1) *Statement of the problem by the Hon. the Finance Member in the Budget Speech.*—Sir George Schuster devoted a considerable portion of his Budget Speech to a survey of the economic position of the country and to a consideration of the problems which are likely to affect its ordered development. He stated that there were three main problems to consider :—first, how to deal with the increase in the real burden of the fixed money payments of the agriculturist due to the fall in prices and the accumulation of debt which is resulting therefrom ; secondly, how to increase the internal demand for India's agricultural produce and, thirdly, how to improve the external demand.

As regards the first problem of rural indebtedness, he pointed out that there had been many alleviating factors. Reference has been made, on page 9, to Sir George Schuster's comments upon them. He added :—

> " But the fact that we have survived without disaster so far does not mean that serious problems are not being set up. It is a question of how long the present state of affairs can continue. Undoubtedly in the early stages of the depression savings in cash and other forms were drawn upon and this cannot last for ever. Moreover, the accumulation of arrears of rent and interest may lead to a serious situation. We have throughout watched this situation carefully in close consultation with Provincial Governments and we have now, with the cordial approval of these Governments arranged to have a conference early in April, 1934, at which we can together review the whole situation and consider this problem of indebtedness together with all possible lines of concerted action to improve the general economic situation. The problem of indebtedness is one of immense difficulty and has many reactions and I may say that our present view is that a solution is not likely to be found by any heroic attempts to equip India in the midst of this crisis with some entirely new credit system different to that which has grown up as a result of centuries of experience."

Dealing with the second problem of how to increase the internal demand for India's produce, the Finance Member referred to the measures which had been taken to stimulate Indian industries but pointed out that if India produced what other countries formerly exported to India, the world's purchasing power for Indian exports would diminish unless it were possible to raise the general standard of living in India and provide an increased market capable not only of absorbing the products of Indian industries but also of continuing the use of imported commodities. In this connection Sir George Schuster cited the recent development of the canning industry in the United Kingdom—a development promoted by the Welsh Tinplate Manufacturers—which had within a few years not

only created a demand for over 50,000 tons of tinplate but had brought great benefits to the fruit and vegetable growers and to the fishing industry. He suggested co-operation between Indian and United Kingdom manufacturers working along similar lines in—say, the iron and steel industry and in the development of electrical plant, so that there may be room for both the Indian and the United Kingdom industries to find an increasing market. He then referred to the action which Government might take directly to stimulate internal purchasing power by undertaking expenditure on public works and other projects and stated :—

> " This method is obviously worthy of consideration, but if it is to do good it must be governed by certain essential conditions. It must be directed mainly to purposes which will directly or indirectly increase the economic strength of the country, and it must not be employed beyond what the credit and resources of the country will stand—for such expenditure means raising loans and paying interest upon them. This means that the extent of the possible application of this method is limited, and therefore that it should be applied at the time when it can have the maximum effect. It is like a medicine which will be most effective if it is given to the patient just at the moment when it will help him to turn the corner. It is quite possible that the proper time has come when we may utilise this method with beneficial results. On the one hand there are signs that the weakening processes of increasing economic depression have been checked and that there is a tendency towards recovery which with a slight stimulus might really take a hold on the situation. On the other hand we have so strengthened our credit position that we can look forward to being able to raise money without straining our credit and on easy terms. For all these reasons we have been diligently exploring possibilities. As my Honourable Colleague, Sir Joseph Bhore, announced in introducing the Railway Budget, we have this year made quite a substantially increased allotment for works expenditure on the railways, and as a matter of financial policy we have informed the railways that we can now encourage sound projects of capital expenditure. We have also as another step in this direction reopened the Delhi Capital project and have a programme for buildings amounting to about one crore on hand. We are offering generous assistance to Bihar and Orissa for their earthquake rebuilding programme. We have removed the ban on capital expenditure in the Provinces and have pressed them to consider road construction and other development programmes for which we are prepared to offer facilities at the lowest possible rates of interest. The Provincial Governments have naturally shown caution in taking up these ideas for they are having a hard struggle to maintain equilibrium, and do not wish to mortgage their future by heavy loan charges. In any case this is a line of policy in which the main initiative must be taken by the Provincial Governments and it is one which we propose to explore fully with them at the forthcoming conference, to which I have just referred."

Turning to the third problem of how to improve the external demand for India's produce, the Finance Member, after outlining the main causes for the drying up of internal trade such as increasing economic nationalism supported by tariff barriers and exchange restrictions, classified the possibilities under three heads :—

Firstly, the field of ordinary trade unaffected by special agreements. Competition would become ever fiercer, for even when a

country had a monopoly of a particular article such as jute, there were substitutes to be taken into account. One of the most urgent tasks of the future was to insure the position of India's products in world markets by improving their quality and grading. An initial step had been taken by the Government of India in this direction by securing the services of a first-class marketing expert, who would start by undertaking " ad hoc " enquiries as to certain of the more important crops and who might then advise as to the setting up of a larger and permanent organisation.

Secondly, there was the policy of bilateral agreements which would provide, on broad lines, for an exhange of goods between two countries leaving individual traders to work out the actual operations. An example of this was the recently concluded agreement with Japan which had secured the market for a large part of India's exportable surplus of cotton.

Lastly, there was the possibility for groups of nations by agreement to preserve a favourable regime for mutual trading which would be effective to the extent that their needs were complementary. There was only one important group, viz.—The British Commonwealth of Nations which had made a start on these lines by the Ottawa Agreements and India was fortunate to be a member of it. In a striking passage, which created a most favourable impression on the Assembly, Sir George Schuster wound up his reference to the subject in the following terms :—

> " The Ottawa Agreement has already helped us and its beneficial effects are apparent in several cases. I cannot attempt in this speech any detailed examination of those effects, on which the Commerce Department has promised to furnish a full report later in the year. But I may call the attention of the House to certain striking facts such as the increases during 1933 in our exports of linseed and rice and the great value of our exports of tea to the United Kingdom, all of which are largely dependent on our preferences in that market. But perhaps the most impressive illustration of the increasing value of the United Kingdom market to India is to be obtained from the general trade figures. Whereas the value of India's exports to all other countries, expressed as a percentage of their average value for the 10 years 1920 to 1930, amounted in 1932 to 40% and in 1933 to 41%, the same percentage figure for the value of exports to the United Kingdom was 53% in 1932 and increased to 62% in 1933. Or, to illustrate the increase in another form, I may point out that during the 10 years 1920 to 1930 the United Kingdom took 22½% of India's exports, while in 1933 she took over 30%. Obviously therefore the prosperity of the United Kingdom and favourable trade arrangements with her are of immense importance to India.
>
> I believe that the arrangement started by the Ottawa Agreement is capable of much wider extension, and that the members of the British group of nations—India in particular—ought to be constantly engaged in a scientific study of the position, exploring new opportunities for mutual exchange. It would surely be advantageous if all these nations could co-operate in some permanent organisation for the furtherance of this purpose. But if India is to obtain benefit in this way it needs

a broad-minded outlook, for as I have already pointed out no country can hope to sell more to others unless it is ready to buy more from them. The efforts now being made by the Lancashire interests to increase their power to absorb Indian cotton is of welcome significance as a sign of British appreciation of this truth. It seems to me that there are encouraging signs of a growing recognition of the same truth in India. The better relations set up as a result of the recent delegation from Lancashire, and the agreement concluded by the Millowners' Association, under the courageous leadership of my honourable friend Mr. Mody, are likely to prove of incalculable value, while I am one of those who believe that those Indians who represented India at Ottawa, and who supported the agreement in this Assembly have done a lasting good to their country, and especially to the agricultural masses.

Now in working on all the three main lines which I have mentioned it is essential that Government should be able to give scientific study to the problems and have accurate statistical knowledge as to its own position. We have made several changes lately in our organisation in order to facilitate this. We have for some time had an economic subcommittee of Council, and we have recently set up a central bureau for Economic Intelligence and Statistics at Government headquarters which provides the permanent expert organisation for the Economic Sub-Committee. Further developments on these lines will depend on the recommendations to be made by the two economic experts from England—Professor Bowley and Mr. Robertson—who are now examining the position in consultation with three Indian economists.

Great opportunities have been created in India for agricultural and industrial expansion, and that has been proceeding even in recent years. The economic machinery has worked steadily without breakdown even through these years of unexampled difficulty. The worst than can be said is that it has worked at an unduly small margin of profit and that there may be an aftermath of special problems arising out of the changes in the relations between money and goods. What is needed now is carefully directed action to deal with these special problems, combined with planning to take the fullest advantage of India's potentialities of production, and in doing this we must recognise that India cannot thrive alone or independently of the prosperity of other countries. That should be our purpose rather than the construction of entirely new machinery or the imposition of Government control on every sphere of economic activity, and I would again remind Honourable Members that this control and a very drastic restriction of agricultural production is an essential feature of the price-raising methods included in plans like that of the United States. That Government fully recognises the needs which I have stated and is taking action for dealing with them will, I hope, be apparent from what I have said."

(2) *Debate in the Legislative Assembly.*—During the budget debate on the 8th March, 1934, Mr. F. E. James, a prominent member of the European group, initiated on behalf of the unofficial European members a whole-day debate on the general question of economic planning. In the course of a speech, which was well received by all sides of the House, Mr. James submitted four main proposals as follows :—

(1) That there should be a redistribution of portfolios in the Government of India. The first suggestion was that there should be a Member for Commerce and Industry, the beginnings of a Board of Trade. Secondly, that there should be a member in charge of Communications,

Roads, Railways, Civil Aviation, Inland Water Transport, Posts and Telegraphs. Thirdly, that there should be a member for Agriculture and Labour. He believed that a redistribution on these lines would result in better planning, swifter decisions and greater co-ordination of effort. Government machinery should be so adapted as to meet the needs of the moment which were increasingly in the direction of economic and industrial adjustment.

(2) The second proposal related to tariffs, both Customs and Railway and four specific suggestions were made. Firstly, that the Tariff Board should become a permanent body not dependent for its life upon the number of pending enquiries, that its personnel should be strengthened to include recent commercial, industrial and Customs experience among its membership, that in general tariff matters it should be the principal advisory body to Government, that it should be more flexible and that its reports should in future be published with greater rapidity. Also, it should be empowered to collect compulsory information from protected industries so as to be able to watch the effects of the duties —"our general line is that the tariff should neither exploit the consumer nor shelter the inefficient." Secondly, that there should be instituted as early as possible an inquiry into the incidence of tariff rates on non-protected articles. In certain articles both consumption and revenue had declined—a proof of diminishing returns—and some of the duties with their surcharges were becoming a substitute for indiscriminate protection. Thirdly, that there should be a consolidation of the Tariff Schedule. The Tariff Schedule and the Indian Tariff Act had become so complicated by reason of the numerous amendments and adjustments resulting from the surcharges and from recent tariff legislation that it had become almost impossible for a layman to follow them. Fourthly, that there should be a thorough overhaul and scientific reconstruction of the railway tariffs, particularly of the rates on goods traffic and also of the rates on passenger traffic.

(3) The third main proposal advocated the formation of an Economic Advisory Council consisting, not of representatives of communities or special interests, but of representatives of industry, banking, commerce, agriculture, labour, transport and the Tariff Board. The Council should not be unwieldy and its numbers should not exceed 15. It should be assisted by a small permanent staff of experts in economic matters, drawing upon academic and practical experience. Its Chairman or Vice-Chairman might also be a permanent official. Mr. James added—

> "Later on it may be necessary to have something more on the lines of the Imperial Council of Agricultural Research which will do for industry what that body is attempting to do for agriculture in connection with co-ordination and research; but for the moment we are content to make the less ambitious proposal in order to get something going and to provide Government with some advisory body which can help them on many of the problems which come before them. We suggest that, although this will mean an increase in expenditure, it should be well worth it and might perhaps save Government from some of those expensive policies which they have followed in the past, whereby, under huge tariffs, they have encouraged the unrestricted growth of industrial and agricultural development and then have come along later on with excise duties to knock these developments on the head."

(4) The final proposal stressed the necessity for overhauling India's commercial treaties and agreements. In entering into new trade agreements, it should be ensured that those agreements should not

be too hard and fast or for too long a period. The short-term agreement, denounceable or variable at short notice was preferred. Such agreements should not, in future, be hampered by the unrestricted most-favoured-nation clause.

In replying to the debate on behalf of the Government of India, the Finance Member doubted whether a mere redistribution of portfolios without an increase in the membership of the Executive Council would meet the difficulty. He stressed the work done by the recently created economic sub-committee of the Executive Council and referred to the difficulty of considering economic questions from an all-India aspect unless the provincial Governments were consulted; hence the number of conferences with representatives of the Provinces. Adverting to the Tariff Board, Sir George Schuster defended the present system and stated that the Indian Tariff Board had been looked upon by the delegates at Ottawa as being a model organisation, upon which, he thought, the recent organisation set up by His Majesty's Government in the United Kingdom had partly been modelled. He had already referred in the budget speech to the early introduction of a Tariff Consolidation Bill, which would remove the anomaly of the difference of form between the tariff schedules which are on sale to the public and the schedules of the Tariff Act. Consideration was being given to a suggestion emanating from the League of Nations that there should be a standard grouping of commodities both in the Tariff Schedules and also in the Trade Returns so that effective comparisons can be made over a series of years and the effects of duties on trade can be gauged with some degree of accuracy.

As regards the suggested Economic Advisory Council, Sir George pointed to the experience of other countries where it had been found that the occasions for using a large Council do not often arise, but that a small permanent secretariat might be of value. This was inevitable as questions of policy were almost always involved and these must be decided by the Government themselves. He admitted that the plans of the Government of India with regard to this matter were not yet fully matured and that they were awaiting the report of Messrs. Bowley and Robertson before a final decision would be made.

Sir Joseph Bhore, the Commerce Member, replied to the suggestion for the revision of commercial treaties with foreign countries by explaining that India's treaties fall generally into three classes. Firstly, the class of treaty in which India is directly a party; secondly, the class of treaty concluded by His Majesty's Government which has been applied to India; and thirdly, the class of treaty concluded by His Majesty's Government which has not been applied to India, but in respect to which the most-favoured-nation treatment can be extended to India on a basis of reciprocity. Sir Joseph intimated that a reasonable line of approach to the problem would be, not to inquire whether a treaty is old in point of

time, but to inquire whether in actual practice the present conditions of trade and commerce necessitate some revision of that treaty. That was the general line of approach which the Government of India had adopted in respect of these treaties. He would deprecate hurried revisions for the sake of revising and bringing up to date old treaties. Conditions to-day in the economic world were most uncertain and it would seem to be the wiser course to adhere to existing engagements unless circumstances made it essential, as they did in the case of Japan, for an immediate revision to be undertaken.

On the subject of railway rates, the Commerce Member stated that the preliminary steps had been taken for a reconsideration of the classification of goods traffic. Referring to the Tariff Board, Sir Joseph pointed out the impossibility of comparing the Indian body with the Tariff Advisory Committee in the United Kingdom. He said that the last word in regard to the Tariff Board had not been said and its composition, constitution and functions were matters on which they kept an open mind. The Government of India agreed that the Tariff Board should contain members with recent commercial experience, but it had been a matter of the utmost difficulty to secure the services of even one individual of sufficient status in the commercial world to become a member of the Tariff Board.

(3) *Action taken by the Government of India on Rural Planning.* —In April, 1934, a conference of representatives of provincial Governments was held at Delhi under the chairmanship of the Finance Member to consider the economic position of India and to concert measures for dealing with the present depression. The immediate steps proposed as a result of the conference were published in a resolution of the Government of India dated the 4th May, and may be summarised as follows :—

(1) Development of marketing. Central and provincial marketing officers would be appointed and marketing surveys would be undertaken in order to increase the cultivator's selling power. Improvement in respect of particular commodities would be under the charge of commodity committees and, in the Provinces, dairying committees are proposed. Special attention would be paid to grade standards.

(2) Co-ordination of agricultural production throughout India. A conference of Directors of Agriculture and Land Revenue Officers will discuss crop planning to be initiated before the winter sowing season.

(3) The appointment of Trade Commissioners abroad to be resumed.

(4) Productive schemes of capital expenditure in the Provinces are to be reported by the Provinces and will be sympathetically considered by the Government of India.

(5) The establishment of a Central Bureau of Industrial Research on the lines of the Imperial Council of Agricultural Research.

(6) The appointment of an expert officer to report on the functions of the Agricultural Credit Department of the Reserve Bank.

The Conference found that legislative measures to relieve rural indebtedness must be primarily provincial as conditions vary so extensively from province to province. Similarly, they decided that the responsibility for policy in establishing land mortgage banks must rest with provincial governments. Nevertheless, the Reserve Bank would assist such projects with advice and co-operate with all agencies handling rural credit. The appointment of an experienced Punjab official to report on the subject should ensure that this section of the Reserve Bank's activities will be inaugurated on sound lines. The commodity committees which are proposed will be modelled on the Indian Central Cotton Committee and a start will be made with oilseeds and tobacco. Similarly, work will be undertaken in connection with animal husbandry and dairy products.

Indian Trade Commissioners are already stationed at London and Hamburg. A further post at Milan will shortly be filled and new posts are contemplated in the U.S.A. and Japan.

Conferences dealing with wheat and crop planning have since been held in Simla and disclosed sharp divisions of opinion among the Provincial representatives, who, naturally, were inclined to lose sight of the all-India interest in pressing their own particular requirements. A valuable beginning of a concentrated attack on the agricultural problem has been made. The interest of local Governments has been stimulated and the future success of the movement will largely depend upon their readiness, where necessary, to sink selfish local interests in the broader interests of India as a whole.

CHAPTER II

MEASURES TAKEN BY THE GOVERNMENT OF INDIA TO PROTECT THE INDIAN TEXTILE AND IRON AND STEEL INDUSTRIES AND THEIR REPERCUSSIONS ON THE RESPECTIVE UNITED KINGDOM EXPORT TRADES.

I.—TEXTILES.

At the time of the Ottawa Conference in 1932 the claim for protection of the Indian Cotton Textile Industry had been remitted to the Indian Tariff Board for investigation. The Board, in its terms of reference, had been requested to report, in the event of the industry's claim for protection being established, in what form protection should be given and to what extent. Further, it was directed to advise, if it was proposed that protection should be given by means of import duties, (*a*) whether the same rate of protection was required against the competition of goods manufactured in the United Kingdom as against the competition of goods manufactured elsewhere and (*b*) what rates of duty were recommended in respect of (i) cotton piecegoods, (ii) piecegoods made wholly or partly of artificial silk and (iii) cotton twist and yarn, according as these are manufactured (A) in the United Kingdom and (B) elsewhere.

In view of the fact that the whole question was " sub judice " the delegations at Ottawa felt that it would be premature to arrive at any agreement at that stage. Article XI of the Ottawa Trade Agreement, therefore, provided that :—

> " The Government of India will consider, in the light of the findings of the Tariff Board, the protective duties to be imposed on goods of cotton and artificial silk according as they are made in the United Kingdom or elsewhere, and will invite the Legislature to pass legislation by which, where protective duties are not imposed as a result of the recommendations of the Tariff Board upon United Kingdom goods of the kinds specified in Schedule G, the margins of preference shown in that Schedule will be extended to such goods."

Schedule G included a list of goods such as apparel, lace and embroidery, fents, haberdashery and millinery and other types of miscellaneous textiles of cotton, silk or artificial silk or mixtures thereof which were not subject to protective duties and would therefore, according to the principles accepted at Ottawa, be eligible for the 10% preference. As the Indian delegation stated, there was, in principle, no objection to a preference on textile goods which were not subject to protective duties but they felt that it would not be right to commit the Government of India finally until the Tariff Board report had been received and considered. They added—

> " To attempt to anticipate the Tariff Board findings as regards particular classes of goods made of cotton or artificial silk would clearly

be wrong, and although no question about the duties on silk goods has been referred to the Board, it was impossible to overlook the fact that the duties on silk and artificial silk were equalised only a year ago, and to alter the duties on silk goods while leaving those on artificial silk goods unchanged would lead to undesirable complications. It was for these reasons that the whole class of goods made from cotton, silk and artificial silk seemed to us to require separate treatment."

In December, 1932, the claims of the Indian sericultural industry to protection were remitted by the Government of India to the Indian Tariff Board who were instructed to make recommendations, after taking into account revenue considerations and the principles of discriminating protection :—

(*a*) whether, having regard to the nature and extent of the competition of raw silk from foreign countries, the claim of the sericultural industry to protection had been established; and

(*b*) if the claim were found to be established, in what form protection should be given and to what extent.

In particular, the Board was requested to consider how its recommendations would affect the handloom weaving industry.

The Cotton and Artificial Silk Textile Tariff Board presented their report to the Government of India in November, 1932, and the Silk Tariff Board reported in May, 1933. By the late spring of 1933, therefore, the Government of India had before them the views of their expert advisers on the position with regard to the three textile industries left over at Ottawa. The reports were not, however, published until February, 1934.

Report of the Tariff Board Enquiry into the Cotton Textile Industry.—The conclusions and recommendations of the Board are too long to be given in extenso here. In brief, the Board found that, as compared with 1926-27 when the Indian market for piece-goods was supplied as to 33% by imported goods, 40·6% by Indian mill woven goods and 26·4% by handwoven goods, the estimated corresponding proportions in 1931-32 were—imports 13·7%, Indian mill products 56·6% and handloom production 29·7%. In grey and white dhooties the decline in imports had been made good by Indian mills. In grey longcloth and shirtings the United Kingdom had lost trade to Japan, which country was also making a strong bid for the trade in white shirtings. The Indian mills also were steadily increasing their production of this class of goods while in T. cloths, domestics, sheetings, drills and jeans, the mills were able to hold their own. There had been a decline in the imports of all kinds of coloured goods without any corresponding increase in mill production.

The Board found that to determine the measure of substantive protection required, it was necessary to consider the costs of mills of a reasonable standard of efficiency. They stated that no comparison was possible between different classes of Indian and imported cloth; hence it was impossible to estimate the measure of protection

required by comparing the fair selling price of an Indian article with the duty-free price at which a comparable imported article was sold. The only practicable method, therefore, was to compare the fair selling price estimated for Indian cloth with the price, less duty, actually realised by the Indian mill. Proceeding on this basis, *they estimated that the measure of assistance required might be fixed at 5 annas per lb. for plain grey goods, 5¼ annas per lb. for bordered greys, 6 annas per lb. for bleached goods and 6⅓ annas per lb. for dyed, coloured, woven and printed goods. The Board recommended that protection should be afforded by means of specific duties based on these four broad classifications.* They held that specific duties based solely on weight were not likely to cause any serious disturbance of the relative incidence of taxation except that goods of the coarser counts, in which the need for protection was greater, would be liable to proportionately higher rates of duty. The specific duties should be applied to goods of all counts and kinds of weave. The specific duty, being the estimate of the measure of protection needed, should be a minimum, below which the import duty should not be reduced during the period of protection. Revenue exigencies should be safeguarded by an ad valorem duty which might be varied from time to time. The period of protection should be fixed at ten years.

The Board then contended that protective duties should be applied to goods woven from the finer counts, first, because such goods competed indirectly with goods manufactured from Indian cotton and, second, in order to encourage the manufacture of goods from imported long staple cotton. The proposed specific duties represented in practice the average of the rates applicable to United Kingdom and to Japanese goods. *It was impossible to make any estimate of a normal difference in the prices of comparable classes of goods between imports from the United Kingdom and those from Japan.* In the lines in which competition was keenest, United Kingdom goods were often sold at prices closely approximating to those of Japanese goods. The specific duties proposed were based mainly on the difference between the costs of manufacturing goods of medium counts and the prices realised for these goods and it was therefore necessary, in order to safeguard the industry, to apply the duties to all imported goods including those from the United Kingdom.

In cloth of the coarser counts, the Board estimated that internal competition would keep the level of prices considerably below the level of import prices plus duty. In cloth of medium counts—25s to 40s—they considered that the specific duties would at first average 33⅓% *ad valorem* on United Kingdom goods and considerably more on Japanese goods. They anticipated that within a year or two the prices of these goods would be determined mainly by internal competition, when the level would fall appreciably. In cloth of counts 40s to 50s the specific duties would represent a

general *ad valorem* rate of 25%; and in cloth of counts above 50s they would not exceed 20%.

Finally, in considering the application of the Ottawa Trade Agreement to their proposals, the Tariff Board stated—

> "We have explained that the ad valorem duties under our proposals are intended to serve as revenue and not as protective duties. The purpose of these duties is to safeguard the revenues of the Government in cases where the specific duty may be lower than the revenue duty at the ad valorem rate. The level at which the ad valorem duties are fixed will therefore depend under our scheme on the budgetary requirements of the Government from year to year and will be subject to such arrangements as may be made by the Government and the Legislature regarding revenue duties. In the terms of reference under which this enquiry is referred to the Board, our attention is drawn to the fact that 'the Government of India have decided to discuss at the forthcoming Imperial Conference at Ottawa the question whether Great Britain and India should enter into a trade agreement embodying a preferential tariff regime so designed as to benefit the trade of both countries.' It is announced that a trade agreement has now been reached between His Majesty's Government in the United Kingdom and the Government of India and will be placed before the Indian Legislature for approval. Under the terms of the agreement it appears that the principle of preference will be applied so as not to affect the protection intended for Indian industries. If the trade agreement is ratified by the Legislature, its application to the tariff scheme proposed by us will be determined on the basis that the specific duties as protective duties will be outside the scope of the agreement, while the ad valorem duties as revenue duties will be subject to such arrangements as may be made by the Government and the Legislature in pursuance of the agreement. This consideration applies equally to the supplementary proposals contained in Chapter X of our report. It will be seen from the tariff schedule in Chapter XI of our report that all the articles included in Schedule G to the Ottawa Trade Agreement will under our proposals be liable only to the revenue duty."

Report of the Tariff Board on the Indian Sericultural Industry.—The main recommendations of the Board, from the point of view of the United Kingdom exporter of silk fabrics, are summarised in the following two concluding paragraphs of their report :—

> "The first stage of investigation into the cost of production deals with the cost of cocoon production, the most important item of which is the cost of cultivating mulberry. There is considerable variation in the costs stated to us; but we have come to the conclusion that the present cost is about four annas a pound in Bengal and four and a half annas elsewhere. We have decided to base our recommendation on a price for cocoons of five annas a pound. There are similar variations in the costs of reeling by charkha. We estimate the works cost of producing a pound of raw silk by charkha at Rs.5-12-4, Rs.5-1-4 and Rs.4-10-8 for 1st, 2nd and 3rd quality silk. Adding overheads we arrive at fair selling prices of Rs.6-2-6, 5-4-3 and 4-13-5. There is variation again in works expenditure between one filature and another. We estimate the works cost of producing a pound of silk in a filature of economical size working to full capacity at Rs.6-4-0 and the fair selling price at Rs.6-10-9. To estimate the measure of protection needed we compare (1) the prices of imported filature and re-reeled silks with the price of 1st quality charkha silk and (2) the prices of imported native-reeled silks and filature dupions with those of 2nd and 3rd quality

charkha silks. The average price of imported filature and re-reeled silks is Rs.3-12-0 and the average price of native-reeled and filature dupion is Rs.2-10-7. The difference between Rs.3-12-0 and the price of 1st quality charkha silk (Rs.6-2-6) is Rs.2-6-6; and the difference between Rs.2-10-7 and the average of the prices of 2nd and 3rd quality charkha silk (Rs.5-0-10) is Rs.2-6-3; we recommend a specific duty of Rs.2-6-0 a pound. This will afford enough protection for filatures as well as for charkha silk. We also recommend that the alternative ad valorem rate of duty be raised to 50%. We believe that this rate is adequate and not excessive. We recommend that it apply for a period of five years and that it be applied to all classes of raw silk; we also recommend that the 50% ad valorem duty be applied to cocoons. We suggest that emergency action be taken on our report under the provisions of the Safeguarding of Industries Act, 1933.

We recommend that the ad valorem rate of duty on silk goods be raised to 83%. We also recommend that the ad valorem rate of duty on silk mixtures be raised to 60%. We recommend that all silk yarns, including thrown silk and spun silk, be liable to the duty which we recommend for raw silk. We also recommend that thrown silk and spun silk be entered separately in the trade returns. We recommend that a specific duty of Re.1 a pound be levied on artificial silk yarn. We do not propose to touch the specific duties on artificial silk goods and mixtures but we recommend that their ad valorem rates of duty be raised to the same level as those which we have proposed for silk goods and mixtures. Research should be carried out by provincial and State Governments and their results co-ordinated by a sericultural committee of the Council of Agricultural Research, which should arrange for such financial assistance as may be required and suggest legislative action when necessary. This committee should explore the possibility of improving facilities for sericultural education. Improvements in marketing should be undertaken, and the establishment of conditioning houses should be taken up. Generous financial assistance should be provided. The collection of statistics should be improved. The Government should watch the course of prices and be ready to apply the provisions of the Safeguarding of Industries Act, if need arises. Steps should be taken to include raw silk in the list of Imperial preferences."

The Indo-Japanese Treaty and Protocol.—In Chapter I, pages 16 and 17 will be found an account of the negotiations between the Government of India and a Japanese Official delegation, led by H.E. Mr. Setsuzo Sawada, which resulted in the initialling in April, 1934, of the new treaty, the provisions of which will be found in Appendix I. This treaty, which provided for the reduction of the duties on Japanese cotton piecegoods to 50% and the restriction of their volume by a quota, settled the fiscal conditions governing Japanese competition until the 31st March, 1937, and, therefore, to that extent, circumscribed the tariff action which could be taken against the United Kingdom product and neutralised the recommendations of the Tariff Board.

Visit to India of the British Cotton and Artificial Silk Industries' Delegation.—Meanwhile, in the early summer of 1933, Mr. H. P. Mody, the Chairman of the Millowners' Association, Bombay, was in England in connection with the deliberations of the Reserve Bank Committee. He found that recent activities of the Indian millowners had created feelings of suspicion and resentment in

Lancashire. He found, moreover, that the stage had been set for discussions in London between the Japanese and United Kingdom textile industrialists affecting the future of the Indian market. He came into touch with the responsible leaders of the Lancashre industry, conveyed to them that any attempt on their part to settle the problems of the Indian market except in consultation with the Indian mill industry would be strongly resented and suggested that representatives of the United Kingdom and Indian industries might, with mutual advantage, discuss not only the question of Japanese competition but other outstanding matters of common interest. As a result of a series of conferences in Manchester and London, it was decided that an influential Lancashire delegation should visit India and a telegraphic request was sent to all the bodies representative of the Indian Cotton Industry that they should send representatives to confer with the delegation on arrival in Bombay. It was known that the Japanese official delegation to India would be accompanied by a number of prominent Japanese industrialists and, finally, it was arranged that a tripartite conference of industrialists should be held in India in September, 1933.

The United Kingdom delegation from the United Kingdom had Sir William Clare Lees as Chairman and its members were Messrs. Angus Campbell, S. S. Hammersley, M.P., R. Houghton, Frank Longworth, E. Raymond Streat, H. L. Aspden and Maurice Spilman. The delegation arrived in Bombay on the 14th September, 1933, and its discussions with the Indian millowners commenced on the 17th September. The problems confronting the delegation are very clearly summarised in the following statement drawn from their report :—

> " The Indian Government were on the point of receiving a diplomatic Mission from the Japanese Government. The object in view was to endeavour to negotiate a new basis for Indo-Japanese trade relations to replace the trade arrangement dated 1904 of which the Government of India had given six months' notice of cancellation expiring on 10th October. The Japanese Government had already made it clear that one of the principal objectives of their diplomatic Mission would be to secure a reduction of the duty on their cotton piece goods entering the Indian market. The Indian Government had raised the duty to the level of 75% ad valorem in the previous June and since differential duties against Japan alone were contrary to the Treaty which was still in force this rate of duty had been made applicable to all goods of foreign origin in spite of the fact that it was imposed as a consequence of Japanese competition.
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> It had been freely suggested in authoritative quarters that the Indian and Japanese Governments would discuss a proposal to institute a quantitative limitation of Japanese cotton piece goods imports into the Indian market as one of the possible methods of regulating commercial relations between the two countries so far as the cotton trade was concerned. Cotton spinners in Japan had announced their intention to boycott Indian raw cotton, and the cotton growing interests of India, not unnaturally, had voiced their anxieties on this score and their wish to include amongst the matters to be considered the question of Japanese purchases of Indian cotton.

It was clear that any arrangements which might be come to as between the Indian and Japanese Governments could not fail to exercise a profound influence upon the prospects of the British cotton and artificial silk trades in the Indian market and the responsibility was entrusted to us of making representations in the interests of British trade.

In the second place, a situation of very considerable uncertainty existed in connection with the Indian tariff treatment of British cotton and artificial silk goods quite apart from the question of Japanese competition. For two years past British manufacturers and traders had been concerned lest the Government of India should institute further fundamental changes in this connection. In the spring of 1932, the Government of India had asked their Tariff Board to consider and report what duties were desirable upon cotton and artificial silk goods entering India "according as they were made in the United Kingdom or elsewhere." In July, 1932, at the Ottawa Conference, the Indian and British Governments entered into a trade agreement in which each country granted certain preferences to the other. The Indian Government felt unable to enter into any precise engagement as to the treatment of British cotton and artificial silk goods at a moment when the question was under review and only undertook to consider the duties in the light of the findings of their Tariff Board. The Tariff Board reported at the end of November, but in the meantime new circumstances had arisen in the shape of a widespread development of Japanese competition, a prospective adverse balance in the internal budgetary position of India and a world position of great uncertainty in relation to various national currencies. Presumably on this account the Government of India did not proceed with the Tariff Board Report, but in April, 1933, gave six months' notice for the termination of the Indo-Japanese trade arrangement and followed that action in June by increasing the duty on cotton piece goods of foreign origin from 50% to 75%. Fundamental decisions on the treatment of British cotton goods were therefore left in abeyance.

In connection with artificial silk goods the position was that the urgent needs of revenue had prompted the Government of India in 1932 to impose heavy duties alike on foreign and United Kingdom manufactures without waiting for the Tariff Board Report and without reference to the possible application of the principle of a preferential margin for United Kingdom products. It was patent that an agreed clarification of this highly confused situation was very much to be desired in the interests of British trade and the Mission was charged with the duty of using its best endeavours to bring about a satisfactory arrangement.

In the third place, the principal organisations in the Lancashire cotton trade had combined in addressing a telegraphic request to all the bodies representative of the Indian cotton industry that they should appoint representatives to enter into conference with us on our arrival in Bombay. Although not perhaps explicitly so stated the inference to be drawn from this suggestion was that on the British side there was a desire to explore the possibilities of agreement between the Indian cotton industry on the one hand and the British cotton and artificial silk industries on the other hand as to a basis for settlement of all the matters mentioned above. In view of the past relations between the Lancashire cotton industry and the Indian cotton industry, which had not been free from mutual doubt and suspicion, the appointment of our Mission was not unjustifiably interpreted in the public press in both countries as a gesture by Lancashire in the direction of good will and co-operation.

In the fourth place, and finally, although no express mention of the matter was made in any of the letters and telegrams exchanged, it was impossible to overlook the important bearing our visit might have upon Indo-British political relations, more particularly in connection with the British Government's proposals for constitutional reforms in India. The future position in India of British trade and traders was a matter which was being anxiously considered in many quarters in England with special reference to the possible consequences of the proposals for a new constitution in India. Our visit in search of amicable and voluntary arrangements of a character satisfactory to British interests could not fail in these circumstances to be regarded in political quarters in both countries as an event of far-reaching significance. This factor undoubtedly added to the complexity of the situation with which we had to contend, but at the same time it lent special importance to our representations and contributed in that way to the attentive reception which was extended to us in every direction."

The Delegation's Negotiations with Indian Millowners.—As a result of weeks of difficult negotiation an agreement was signed in Bombay on the 28th October, 1933, on the actual day of the Delegation's departure for England. This document, which is generally known as the " Lees-Mody Pact ", will, it is confidently hoped, inaugurate a new era of co-operation between the cotton industries of the two countries. It is produced " in extenso " in Appendix II. Although, at first sight, its provisions may not appear to be very far-reaching, it is a document of the very first importance as it marks a significant change in the attitude of the Indian millowners towards Lancashire. Moreover, it embodies the following important concessions :—

(1) It acknowledges for the first time the fact that, in present conditions, the Indian industry requires a higher level of protection against foreign countries than against the United Kingdom, thereby accepting the principle of differential duties on United Kingdom goods.

(2) It clearly lays down that when the revenue position of the Government of India makes it possible to remove the last revenue surcharge of 5%, the Indian interests concerned will not oppose the removal of this surcharge on imports from the United Kingdom.

(3) It promises Indian support for tariff concessions on United Kingdom cotton yarns and artificial silk goods.

(4) It establishes the principle of dealing in future with common problems affecting the two industries by direct discussion.

In addition, and most important effect of all, it superseded the report of the Tariff Board, the recommendations of which, if adopted, would have been most damaging to Lancashire interests. As the Delegation stated in their report—

" Quite apart from material improvements in the situation which may be expected to flow from the making of such an agreement, it offers real hope of bringing about a change in the atmosphere of Indo-British relations on the basis of which much more may be achieved in the future. If inter-Imperial economic reciprocity as a policy is to be developed to the fullest extent, it must go beyond mere tariff bargains between Governments. From genuine industrial co-operation supplemented by tariff arrangements in which the domestic industry concurs, much may grow in the direction of co-ordinated policies. Our

agreement in Bombay may not appear to carry us very far into this territory, but it is a beginning and when it is contrasted with the background of past relations between the parties and with the difficulty of making similar agreements in other countries within the Empire, it acquires increased significance."

The Delegation's Conferences with Japanese Industrialists.— Contacts were established with the Japanese textile industrial delegation, who were in Simla in order to advise the Japanese Official Mission. Separate meetings were held between the Japanese Industrialists and the Indian Millowners at which it is understood that the two parties contented themselves with an exchange of their respective points of view after which they adjourned with the intention each to bear the other's opinions in mind and to continue to advance their interests in the form of advice tendered to their respective Governments. The Delegation from the United Kingdom then held several meetings with the Japanese, but found that the latter had received instructions from their organisations in Japan to confine themselves strictly to questions affecting the cotton piecegoods trade in the Indian market. It soon became obvious that any form of tripartite conversations was not possible nor were the Japanese delegates prepared to go any further than the position taken up by the Japanese Official Mission. Consequently, after a frank exchange of the Lancashire and Japanese points of view, the conversations developed into a discussion of general principles which, it was hoped, might help forward a solution by common consent not only in India but also in the Anglo-Japanese conversations which were to follow in London. After much discussion the following resolution was adopted as summarising the position reached in the Conference:—

"This Conference of Japanese and British representatives, so far as they are respectively authorised to deal with the matter, are unanimously in favour of adjusting the problem of competition by measures of common consent. It is the urgent desire of all parties to the Conference to contribute to the maintenance of the best possible relations among the countries concerned, and it is hoped that when the present world depression in trade gives way to improved conditions it may be possible for them to make progress in healthy and amicable competition."

The Delegation's Representations to the Government of India.— Perhaps the most important work undertaken by the Delegation from the United Kingdom was the presentation to the senior officials of the Government of India of the United Kingdom case in respect of textiles. Opportunities were freely given to the Delegation by the Hon. the Commerce Member and his colleagues and advisers to bring to their notice any considerations affecting the problems under discussion. On the 16th October, 1933, the Delegation formally presented its carefully prepared writen case to the Government of India and, at a formal meeting with the Hon, Members of Council for Commerce and Railways, Industries and Labour, and Education, Health and Lands, who were accompanied by their

advisers, Sir William Clare Lees was afforded the opportunity of explaining and amplifying the case. It was obviously not possible for the Government of India to express their views at a time when their policy with regard to the protection of the Indian industry had not been enunciated and when they were actually in the midst of negotiations with the Japanese Government. On one vital point, however, the Government of India did make a response. In a letter addressed by the Hon. the Commerce Member to the Leader of the Delegation (which is given " in extenso " in Appendix III), Sir Joseph Bhore stated :—

> " Although a full reply to your case is for the time being impracticable, it is possible to give you an assurance on one point. You have mentioned in the course of your representations that the industries which you represent greatly regret the indeterminate character of the provisions relating to their manufactures in the Trade Agreement which was concluded at Ottawa although you recognise that the circumstances at the time of the Ottawa Conference did in fact make it difficult if not impossible for the Government of India to negotiate a more precise understanding. I can give the assurance that the Government of India will enter into discussions with His Majesty's Government in Great Britain on this point as soon as the negotiations now proceeding with the Japanese Government are concluded. The Government of India recognise the natural wish of an export trade of such great importance to Great Britain to be included within the scope of the Trade Agreement which now exists between the two countries."

Negotiations are at the moment (September, 1934), in progress between His Majesty's Government in the United Kingdom and the Government of India, as a result of which it is hoped that the position of the United Kingdom textile industry and also of other United Kingdom industries, of which the products come under the protective items of the Indian Tariff, may be regularised and brought within the scope of the Ottawa Agreement. This supplementary agreement to the Ottawa Agreement will probably be placed before the Indian Legislature for ratification during the Spring Session of 1935.

Position of the Government of India in the Spring of 1934.—The position confronting the Government of India when they came to frame protective legislation to take the place of the existing Act of 1930 was an anomalous one. Since the Tariff Board had reported in the autumn of 1932, the bearings of the problem had been completely changed, first, by the initialling of the new Japanese Treaty and, second, by the conclusion of the agreement between the Delegation from the United Kingdom and the Millowners' Association, Bombay. These two documents superseded the report of the Board and rendered its recommendations inapplicable. As the Commerce Member stated, the Tariff Board had concentrated its attention on the effects of competition from the one quarter from which it was most intense and severe, namely, Japan. The Indo-Japanese Agreement, however, not only set a limit, by the fixation

of a quota, to the inroads of Japanese competition but it was hoped that the fixation of the quota would result in a substantial reduction of Japanese price cutting. Now that the extent of the Indian market for Japanese piecegoods had been fixed, the inducement to reduce prices in order to increase sales had been removed and it was to be assumed that the Japanese would calculate their prices at a level which would enable them to work up to the full quota and that their interests would then lie in making up for the limitation of sales by securing as large a margin of profit as possible. With the elimination or rather regulation of Japanese competition, the only remaining important competitor in the Indian market was the United Kingdom. The Tariff Board had admitted that the duties necessary to protect the Indian industry against Lancashire were lower than the duties which were necessary against Japan. The Indo-Japanese Agreement and the Lees-Mody pact were accepted once they provided the necessary framework for the fixation of the new rates. As the Commerce Member stated in his speech in the Assembly on the 13th March, 1934 :—*

> "Beginning with the duties on United Kingdom goods embodied in the agreement between the Millowners' Association, Bombay, and Lancashire, and imposing thereupon our agreement with Japan, we can start with a complete scheme of cotton textile duties which in our view may be held fairly to meet the requirements of the industry for the present—at any rate until we are in a position, as the result of actual experience, to decide whether any modification of those duties is called for."

The Indian Tariff (Textile Protection) Amendment Act, 1934.—The new Act was passed in April, 1934, and extended the period of protection to the Indian industry until the 31st March, 1939. The tariff rates on British cotton piecegoods will remain in force for two years in accordance with the terms of the Lees-Mody pact. As Sir Joseph Bhore stated—

> "The present rate of 25% ad valorem or 4¾ annas per pound on plain, grey goods and 25% ad valorem on other goods will, during this period, continue until the second surcharge comes off as a general measure. If and when this happens, the duty will be reduced to 20% ad valorem or 3½ annas per pound on plain, grey goods and 20% ad valorem on other goods. On the expiry of the two years covered by the agreement, the duties on British goods for the remaining period of protection will have to be decided on a review of the conditions then existing and in the light of such experience as may have been gained. I have referred to the second surcharge coming off as a general measure. I mean by that the removal of the surcharge on a reasonably large proportion of, not necessarily all, the items now subject to it. The duties on Japanese goods imposed in accordance with the recent agreement will normally continue for the period of that agreement. Thereafter the Government of India will have to satisfy themselves, on a review of the existing conditions, what rates are, in the interests of the industry, essential. In short, what the Government of India

* The official report of this speech is available for examination at the Department of Overseas Trade.

undertake to do is to give adequate protection to the industry for a period of five years."

In the case of cotton yarns the Government of India imposed, in the case of counts 50s and below, a specific duty of 1¼ annas per lb. or 5% ad valorem whichever is higher in the case of United Kingdom goods and 1⅞ annas per lb. or 6¼% ad valorem, whichever is higher, in the case of foreign yarns. As regards counts of yarn above 50s, a rate of 5% ad valorem is levied on United Kingdom goods and 6¼% ad valorem on others.

Fabrics containing more than 90% of artificial silk are assessed at 30% or 2½ annas per square yard whichever is higher if of British manufacture and 50% or 4 annas per square yard, whichever is higher, if not of British manufacture. Although artificial silk is not an indigenous product it competes severely with cotton textiles and with silk fabrics and therefore it was considered necessary to protect the Indian cotton and silk industries to the extent noted above.

As regards artificial silk yarn, a standard rate of duty of 25% or 3 annas per lb. whichever is higher, is imposed on all goods irrespective of origin.

An entirely new scheme of classification of mixture fabrics is embodied in the schedule to the Act. All fabrics containing more than 90% of any textile material are now dutiable at the rate applicable to a fabric entirely composed of that material. As a corollary, when any textile material forms not more than 10% of the fabric, that material is ignored for the purposes of classification. This leaves a series of mixed fabrics which contain more than 10% and not more than 90% of silk, artificial silk, wool or cotton. These are treated as follows :—

(*a*) **Mixtures containing Silk.**—Serial No. 120h of the Indian tariff provides that fabrics not otherwise specified containing more than 10% and not more than 90% silk shall be rated as follows:—

(i) containing more than 50% of silk or artificial silk or of both, 50% ad valorem plus Rs.2 per pound.

(ii) containing not more than 50% of silk or artificial silk or of both;

(*a*) containing more than 10% artificial silk, 50% ad valorem or Rs.1-8 per pound, whichever is higher;

(*b*) containing no artificial silk or not more than 10% artificial silk, 50% ad valorem.

(*b*) **Mixtures containing Artificial Silk.**—Serial No. 120i of the Tariff provides that fabrics not otherwise specified, containing not more than 10% silk but more than 10% and not more than 90% artificial silk are assessable at the following rates:—

(i) If containing 50% or more cotton—

(*a*) of British manufacture, 30% ad valorem or 2 annas per square yard, whichever is higher;

(*b*) not of British manufacture, 50% ad valorem or 3¼ annas per square yard, whichever is higher.

(ii) If containing no cotton or less than 50% cotton—

(*a*) of British manufacture, 30% ad valorem or 2½ annas per square yard, whichever is higher;

(*b*) not of British manufacture, 50% ad valorem or 4 annas per square yard, whichever is higher;

(*c*) **Mixtures containing Wool.**—Tariff Serial No. 122A (iv) provides that fabrics, not otherwise specified, containing not more than 10% silk or 10% artificial silk but containing more than 10% but not more than 90% wool shall be assessed at 35% standard and 25% preferential rate of duty.

(*d*) **Mixtures containing considerable quantities of Cotton.**—Tariff Serial No. 120J provides that fabrics not otherwise specified containing not more than 10% silk or 10% artificial silk or 10% wool but containing more than 50% cotton and not more than 90% cotton shall be rated as follows:—

(*a*) of British manufacture, 25%.

(*b*) not of British manufacture, 50%.

(*e*) **Miscellaneous Mixtures** containing not more than 10% silk or 10% artificial silk or 10% wool or 50% cotton are assessed under Tariff Serial No. 123 at 25% standard duty without preference.

With regard to pure silk, the Government of India agreed with the Tariff Board that the Indian sericultural industry needed safeguarding rather than protection and therefore imposed on raw silk an ad valorem duty of 25% plus 14 annas per lb. Similarly, silk yarn, including thrown silk warps but excluding sewing thread and yarn spun from silk waste or noils, is assessable at 25% plus 14 annas per lb., while silk yarn (spun from waste or noils) and silk sewing thread are rated at 25% ad valorem only. Silk fabrics not otherwise specified containing more than 90% of silk, including such fabrics embroidered with artificial silk are assessed under Tariff Serial No. 120G as follows:—

(i) Pongee—50% ad valorem plus Rs.1 per lb.

(ii) Fuji, Boseki and corded (excluding white cord)—50% ad valorem plus Rs.1-8-0 per lb.

(iii) Other Sorts—50% ad valorem plus Rs.2 per lb.

Raw silk, silk yarns and silk fabrics are not subject either to dfferential or preferential duties. The United Kingdom interest in this trade is very small, imports being drawn mainly from Japan and China.

The obligation to impose preferential duties of 10% on the miscellaneous textile items specified in Schedule G referred to in Article XI of the Ottawa Agreement has been implemented. Thus, apparel, hosiery, haberdashery, millinery, drapery, hats, caps, bonnets and hatters' ware, not otherwise specified, are now rated under Tariff Serial No. 121A (i) at 35% standard and 25% preferential. Fents, not exceeding 4 yards in length being bona fide remnants of piecegoods or other fabrics now come under Serial No. 121A (2) at 35% standard and 25% preferential. Made-up textiles such as handkerchiefs, shirts, shawls, towels, table and bed

covers and cloths, dusters, etc., etc., are assessable, under Serial No. 120L, at the ad valorem rates of duty applicable to the fabric of which the article is wholly or mainly made. Socks and stockings made wholly or mainly from silk or artificial silk come under Serial No. 121A (4) at 50% standard and 40% preferential. A new tariff item No. 121A (3) has been allotted to ribbons of all kinds, which are assessable at 50% standard and 40% preferential.

As the Commerce Member stated—

> "We have implemented this obligation which arises from the fact that we have, so to speak, already received payment in advance through the preferences that have been given to us by the United Kingdom. In respect of certain articles which we have protected, as, for instance, silk cloth, we have given no preference. In respect of others which we are protecting, we have imposed differential rates of duties on British goods in accordance with the agreement come to between the Millowners' Association, Bombay, and Lancashire. No one, I am sure, in this House, would object to our levying these rates unless they adversely affected the interests of the Indian industry. On that point, I think that the concurrence of the Millowners Association of Bombay should carry an assurance to all who are assailed by honest doubts. Sir, no one, I hope, in this House will refuse to give a concession to Lancashire simply because it happens to be Lancashire. *The interests of this country must undoubtedly come first, but subject to that basic and essential condition, I would ask this House to endorse and endorse emphatically a policy of friendliness towards Lancashire and through Lancashire to the United Kingdom as an earnest of that co-operation which is essential if the coming Constitution is to function satisfactorily.*"

Probable Repercussions on the United Kingdom Export Trade.—The first advantage of the new Act is that it settles all the uncertainties and fears of the past few years, which have prevented dealers from operating freely and have caused forward business in Lancashire goods to be a speculative venture. United Kingdom shippers of cotton piecegoods now enjoy a definite 25% fiscal advantage vis-à-vis foreign countries which may be increased to 30% if the financial position of the Government of India permits the removal of the last revenue surcharge in the 1935-36 budget next March. At the moment, this advantage is neutralised in the case of Japan by the low level of Japanese prices, but it should be remembered that the imposition of the Japanese quota frees an additional 200 million yards of cloth consumption to be provided by the Indian mills and Lancashire and of this it is perhaps not too much to expect that Lancashire will secure roundly one-half. Moreover, although Japanese exporters will endeavour to supply their full quota of 400 million yards and have, in fact, qualified for it by their purchases of Indian raw cotton during the current year, it is probable that they will endeavour to make good the restriction in yardage by securing full value for their shipments. There is every incentive for them, therefore, to improve their margins and to cease indulging in drastic price-cutting. This result, in itself, will recreate confidence among dealers, who, during

the past few years, have been afraid to purchase United Kingdom textiles owing to the fear of the market being flooded by Japanese shipments at lower rates. The new duties should also result in the United Kingdom's permanently securing a certain amount of trade which was formerly enjoyed by the Continent.

The Indo-Japanese Treaty and the Bombay-Lancashire Agreement, by rendering inapplicable the proposals of the Tariff Board, have prevented a further serious blow to our textile trade. The Tariff Board recommended fairly high specific rates on goods from all sources, which would have fallen particularly heavily on United Kingdom fabrics. The new Act, by retaining the system of ad valorem duties and by making provision for substantial differential margins between the duties on United Kingdom and foreign imports respectively, has provided a more equitable basis of fiscal treatment from the United Kingdom exporter's standpoint.

Finally, it is no exaggeration to state that the visit of the Delegation from the United Kingdom inaugurated a new era of friendly co-operation between the industries of the two countries and, it is hoped, banished the feelings of mistrust and suspicion which had poisoned relations between the two industries for nearly half a century. The Delegation, by their tact, friendliness and *savoir-faire*, created a most favourable impression, not only on the Indian Millowners with whom they were in negotiation but on everyone with whom they came in contact. For the first time the Lancashire case was presented, with studied moderation and fairness, to the interested parties in the Indian industry and to the Government of India and there is no doubt that it made a deep and lasting impression. A spirit of goodwill and co-operation is the only sound basis on which permanently satisfactory trade relations can be built. The provision of constitutional safeguards is of less importance than that the United Kingdom exporter should enjoy the confidence and goodwill of his clients in the market. Consequently, the visit of the Delegation had a far-reaching political effect. Lancashire has suffered during the past twenty years the loss of four-fifths of her Indian trade. The bulk of this phenomenal reduction from 3,000 million yards pre-war to 600 million yards in 1933-34 will be permanent, but the new Ottawa spirit of co-operation between the two industries and between the two Governments is the only sound basis for such recovery in the position of the United Kingdom as will be possible when the purchasing power of the market revives.

II.—IRON AND STEEL.

As in the case of cotton textiles, the fiscal position of United Kingdom iron and steel in the Indian market has been left by the delegations at the Ottawa Conference for later consideration in 1934 after the Tariff Board enquiry of 1933 had been made. In my

last report, I referred to the 10% preferential duties which had been granted at Ottawa on the unprotected items such as wrought tubes and pipes, hoops and strips, Sheffield products, etc. I also outlined the special agreement which was concluded in respect of galvanised sheets. The position was clearly stated by the Indian delegation to the Ottawa Conference in the following terms :—

> " So far as the unprotected classes of iron and steel were concerned, we had no difficulty in agreeing to a preference so long as the conditions of the Agreement were sufficiently flexible to permit of the addition from time to time of new classes of steel to the protected list. But when the protected classes of steel came under consideration, the difficulties were at once seen to be of the gravest kind. Some classes of iron and steel, such as rails and galvanised sheets, are subject to uniform duties irrespective of origin, and others, such as bars, black sheet and structural sections, are subject to differential duties, a lower rate of duty being imposed on steel made in the United Kingdom and a higher rate on steel made elsewhere. In neither case were we prepared to interfere with the rates of duty fixed after full investigation by the Tariff Board. To concede a preference by reducing these rates to a lower figure in favour of British steel would impair the protection intended by the Legislature to be afforded to the Indian industry, and to raise the duties on foreign steel to a higher point than was required in India's own interest would have been a grave departure from the fundamental principle of the policy of Discriminating Protection. It would have meant that though, when an Indian industry was in question, the consumer ought not to be taxed beyond the extent necessary to give the protection needed, this could be done without objection when a British industry desired to be safeguarded against foreign competition. It is true that the protective duties on iron and steel have been increased by the surcharge of 25% imposed by the Finance (Supplementary and Extending) Act, 1931, and it might have seemed that a way out could be found by ceasing to levy the surcharge on British steel. But apart from the fact that the revenue arising from the surcharge was urgently needed to meet a financial emergency of the gravest kind, a temporary surcharge voted by the Legislature for a period of eighteen months only could not form the basis for a preference in a Trade Agreement. It would have meant that the surcharge must be retained on steel made elsewhere than in the United Kingdom, after it had ceased to be needed for revenue purposes. *Our considered view was that the rates of duty fixed after full investigation by the Tariff Board must be left to their operation for the statutory period, and could only be revised in connection with the Board's enquiry in* 1933."

The Indian Iron and Steel Tariff Board of 1933-1934.—In a resolution published on the 26th August, 1933, the Government of India appointed a Tariff Board comprising Dr. John Matthai, C.I.E., as President and Messrs. G. Wiles, C.S.I., C.I.E., and G. A. Natesan as Members with Mr. C. G. Atha as technical adviser with the following terms of reference :—

" The protection afforded to certain manufacturers of iron and steel by the Steel Industry (Protection) Act, 1927, as subsequently amended, will determine on the 31st day of March, 1934. Clause 3 of that Act provides that the Governor-General in Council shall, not later than the 31st day of March, 1934, cause to be made by

such persons as he may appoint in this behalf, an enquiry as to the extent, if any, to which it is necessary to continue the protection of the steel industry in British India and as to the manner in which any protection found necessary should be conferred. The Government of India have decided that the prescribed Statutory Enquiry should be undertaken by the Tariff Board and the following terms of reference have been framed for its guidance :—

(*a*) The Board is requested to re-examine the measures of protection now enjoyed by the steel industry under the Steel Industry (Protection) Act of 1927, as subsequently amended, the Wire and Wire Nail Industry (Protection) Act of 1932, and the Indian Tariff (Ottawa Trade Agreement) Amended Act of 1932 and to report in respect of each protected article whether it is still necessary to continue protection and, if so, whether the existing measure of protection should be increased or diminished or whether the manner in which protection is conferred should be altered.

(*b*) In dealing with the wire and wire nail industry the Board will bear in mind the considerations set forth in paragraphs 3, 4 and 5 of its 1931 Report on the Wire and Wire Nail Industry and will consider whether the first of the conditions prescribed by the Indian Fiscal Commission in paragraph 97 of its Report is now satisfied.

(*c*) In making its recommendations the Tariff Board will take all relevant considerations into account including that stated in part (*b*) of the Resolution adopted by the Legislative Assembly on the 16th February, 1923.

(*d*) The Board will also be at liberty to examine the claims for protection of industries making iron and steel products which do not come within the scope of the present Acts and to report whether having regard to the principles laid down in paragraph 97 of the Report of the Indian Fiscal Commission such claims should be admitted, and, if so the nature and extent of the protection that should be given."

The Board received representations from the rolled steel industry represented by the Tata Iron and Steel Company, Ltd., from the Tinplate Company of India, Ltd., the Bengal Iron Co., Ltd., the Mysore Iron Works and other Iron Foundries and from firms interested in the following industries :—iron pipes, steel pipes, wire and wire nails, steel fabrication and re-rolling of steel. Representations were also received from the National Federation of United Kingdom Iron and Steel Manufacturers, the Sheet Makers Conference of the United Kingdom, the Welsh Tinplate Manufacturers and from many Indian Chambers of Commerce. During the period November, 1933, to January, 1934, the Board took oral evidence in Calcutta and Bombay from most of those who submitted representations. The Board signed their report on the 19th April, 1934, and at once submitted it to the Government of India.

The United Kingdom Steel Delegation.—In the meantime a small but influential and thoroughly representative delegation comprising Mr. I. F. L. Elliot, representing the United Kingdom heavy steel industry and Mr. J. H. Pearce, representing the Sheet Makers' Conference, assisted by Mr. Baird of the headquarters staff of the

National Federation of Iron and Steel Manufacturers, arrived in India in November, 1933, with the object of amplifying by oral evidence the views of the United Kingdom industry which had already been presented to the Board in the form of memoranda. This delegation was able to render very valuable assistance to the Board not only by explaining the standpoint of the United Kingdom Steel Industry but also by providing particulars and statistics of United Kingdom steel practice. They also established cordial relations with the Tata Iron and Steel Company, the Tinplate Company of India, the firms of fabricating engineers and the principal distributors of steel in the Indian market and so paved the way for a general rapprochement between the United Kingdom and Indian industries.

In their evidence to the Tariff Board, these representatives laid stress on three main objectives (*a*) the free entry of iron and steel products of United Kingdom manufacture, (*b*) the levy of adequate differential duties to afford the Indian and United Kingdom industries protection against the unfair competition of a dumping character which is now being met from the Continent and may in future be encountered from Japan, and (*c*) provision for the prompt application of offsetting duties to meet abnormal reductions in the price level of competing countries which would be likely to upset the scheme of protection. The delegation submitted that, having regard to the progress made by the Indian iron and steel industry since 1926, the industry does not now require protection against imports of United Kingdom iron and steel, which have to bear high freight and land charges. They contended that the granting of free entry to United Kingdom steel would ultimately, by reason of lower cost to the consumer, result in increased demand which would benefit both Indian and United Kingdom producers. It is only by the consumers being able to purchase at such economic prices that consumption and, therefore, production can expand. As regards the need for protection against the foreign producers, they pointed out that the prices of United Kingdom iron and steel products had remained practically unchanged since the last Tariff Board in 1926, while those of Continental suppliers, due to their uneconomic competition, showed a very serious decline. The competition of Belgian and other Continental exporters was uneconomic inasmuch as, in the majority of cases, the Continental makers were supplying material at prices which bore no relation to the actual cost of production. The continuance of such competition, they contended, must operate to the detriment of the Indian consumers by lowering the competitive power of both Indian and United Kingdom producers in the Indian market. If and when such competitive power was weakened or ultimately destroyed, prices would rise to any level which might be dictated by the International Steel Cartel. The delegation strongly urged that the existing measures for dealing with dumping should be applied promptly when necessity arose. The broad policy of the United

Kingdom Federation as regards the Indian market was summarised in the following terms :—

> " The Federation desire to assure the Board that, while their objective is naturally to improve the position for the United Kingdom industry in the Indian market, they fully recognise that the position of the Indian industry, having due regard to the interests of the consumer, must be reasonably safeguarded. They are of the opinion that the consuming power of India in iron and steel could be materially developed by an active policy of co-operation between United Kingdom and Indian producers. Also, that such development of the Indian market—since iron and steel products are for the most part capital goods—would have the effect of assisting materially the economic progress of India in other directions. The United Kingdom industry is prepared to take the requisite steps to ensure the maintenance of an effective organisation, provided it is assured of co-operation on the part of the Indian producers and the benevolent interest of the Government of India in its development. Recognising that, as the consuming power of India develops, it is likely that the productive power of the Indian iron and steel industries will legitimately increase, the basis of the co-operative policy which they envisage is to secure at any moment to the Indian consumer the most efficient service at the minimum economic price."

Report of the Tariff Board on the Indian Iron and Steel Industry.—*Rolled Steel.*—Briefly, the Board found that in spite of the serious falling-off in the demand for steel products, the Tata Iron and Steel Co. had made substantial progress, maintaining its output and greatly reducing its costs of production. The share of the available Indian market obtained by the Tata Company rose from 30% in 1927-28 to 72% in 1932-33. The realisations of the Company had fallen short of anticipations for several reasons, notably, (*a*) the fall in prices, (*b*) increased freight charges to more distant markets, (*c*) failure of anticipated demand from railways and engineering firms, (*d*) the strike and (*e*) the " lag " between realised prices and import prices plus duty. In view of the fact that the profit earned by the Company during the seven years period had amounted to an average of about 2¼% per annum and that, in addition, the Company had been able to set aside Rs.400 lakhs to the depreciation fund, of which Rs.302 lakhs were spent on capital improvements or renewal of plant, the Board could not accept the contention of the Company that the scheme of protection had failed. The Board found that protection had also been responsible for the growth of a re-rolling industry which they recommended should be encouraged. The Ottawa Agreement had been successful and beneficial as regards pig iron. The Ottawa Agreement in respect of galvanised sheets had now served its purpose and its renewal in its present form was impracticable.

After examining in detail present and future works costs, the capital charges of the Company and the method of valuation of fixed assets, the Board confirmed the valuation of the property at Rs.12½ crores and the percentage of depreciation at 6¼%. They reduced the interest to be allowed on working capital from 7 to 6%

on the cost of six months' production. They continued to allow 8% on the valuation of the fixed assets as manufacturer's profit. They then proceeded to deal with the amount of protection required. Having added to the costs of production the overhead and capital charges, they determined the fair selling price f.o.r. Tatanagar. To this price they added allowances for freight disadvantage, selling expenses and the lag between import and realised prices and thus arrived at a fair selling price which is comparable with the landed prices of imported goods. *They proposed to continue the present scheme of differential duties which had proved easy to work and had not given rise to any complaint.* The following table gives the duties recommended alongside the existing specific duties and those recommended by the Board in 1926 :—

	Duties recommended by the Tariff Board of 1926.	Existing specific duties.	Present recommended duties.
	Rs. per ton.	*Rs. per ton.*	*Rs. per ton.*
Rails	13	16¼	Nil.
Fishplates...	6	7½	Nil.
Structurals.			
(1) United Kingdom (tested) ...	19	23¾	Nil.
(2) Continental (untested) ...	30	37½	43
Bars.			
(1) United Kingdom (tested) ...	20	32½	10
(2) Continental (untested) ...	37	46¼	39
Plates.			
(1) United Kingdom (tested) ...	20	25	Nil.
(2) Continental (untested) ...	36	45	25
Black Sheets.			
(1) United Kingdom (tested) ...	35	43¾	11
(2) Continental (untested) ...	59	73¾	32
Galvanised Sheets.			
(1) United Kingdom (tested) ...	38	53	10
(2) Continental (untested) ...	38	83	40
Sleepers	10	12½	Nil.

The Board recommended that the protective duties shall be specific and not ad valorem. They stated that the duties recommended on United Kingdom galvanised sheets were partly of a preferential character. Consequently, in return, they considered that India might claim the continuance of the preferential treatment now accorded to Indian pig iron in the United Kingdom. *They proposed to include in the scheme of protection a provision for offsetting duties under which the Government would have authority to raise or lower the duties as occasion arises on account of changes in import prices or the manufacturing and transportation costs of the Indian industry.* The Board recommended that the scheme of

protection should continue in force until 31st March, 1941. With the exception of fabricated steel imported from the United Kngdom, they held that this recommendation should cover all iron and steel products included in the scheme of protection. *They suggested that the revenue duties should be removed on tested structurals, tested plates and also billets for re-rolling in order to assist the subsidiary industries using these as their raw material.* So far as the technical equipment and efficiency of the Tata Company's plant were concerned, the Board contended that after the displacement of the openhearth furnaces by more modern plant and the completion of the proposed capital improvements the Works would bear comparison with any works of similar age and capacity elsewhere.

Fabricated Steel.—The protective duty recommended by the Board consisted, they stated, of two parts, one intended to compensate for the increased cost of steel due to the protective duty on steel, the other to afford substantive protection. Since no protective duties were recommended on tested structurals and plates, no compensating duty was required on British fabricated steel. A duty of Rs.40 per ton was recommended on imports from other countries. The Board found that the capacity of the Indian fabricating industry was in excess of consumption, imports were negligible and substantive protection was obviously unnecessary. The future of the industry would depend on the extent to which it was possible to stimulate demand. The reduction in costs consequent on the lower duties on rolled steel would assist. Stress also was laid on the desirability of pushing on with schemes of capital development, particularly in the railways. The Board recommended the reorganisation of the Indian fabricating industry on the lines of specialisation and standardisation.

The Board referred specially to what they termed unfair competition from integrated firms in the United Kingdom, particularly in bridgework. They estimated that the duty required to meet this competition was Rs.40 per ton equal to the compensating duty on imports from countries other than the United Kingdom. They recommended, therefore, that a duty of Rs.40 per ton should be levied, in the first instance on imports of fabricated steel from all countries but added :—

> " The duty on fabricated steel imported from the United Kingdom is intended to protect the Indian industry against unfair competition *and not as a measure of substantive protection.* Its duration will therefore be temporary and restricted to the period during which such competition prevails. We still believe that the matter is one which admits of settlement by agreement. If as a result of further steps in that direction it is found that the grounds which now exist for apprehending unfair competition from the United Kingdom have disappeared, it will be open to Government to reduce the duty to the revenue level."

As regards the projected new Howrah Bridge, the Board were satisfied that suitable high tensile steel could be made in India. They recognised the handicap suffered by the Indian bridge builders owing to the necessity of purchasing the special plant for fabrication and erection—plant already possessed by the leading United Kingdom bridge builders. They state :—

> "At the same time, we consider it to be a matter of the utmost importance that when a large public undertaking of this description is under consideration, every effort should be made to utilise to the fullest extent the material resources and manufacturing capacity available in India. Two conditions however must be recognised, first, that apart from the duties on fabricated steel, there should be no increase in the cost of the undertaking on account of the order being placed in India except to the extent admitted ordinarily under the purchase rules of Government and, secondly, that the standard of quality and workmanship considered essential for the undertaking should be fully maintained."

In the case of steel towers for the transmission of electricity, the Board considered that no increase over the present revenue duty was necessary. Similarly, on other special classes of fabricated steel, viz. : pressed steel tanks, structural parts of cranes, canal gates and regulators and sugar machinery, they found that, beyond the protection these items would receive, if any, as fabricated steel, no protection was necessary other than the reduction proposed in the duties on tested steel. They endorsed the present policy of the Railway Board to place all orders for wagons and underframes in India up to the capacity of the Indian manufacturers. Protective duties, however, were recommended in the case of the following types of railway material :—

	United Kingdom. Per Cwt.			*Non-United Kingdom. Per Cwt.*		
	Rs.	*As.*	*P.*	*Rs.*	*As.*	*P.*
Commercial bolts and nuts	Nil.			1	9	0
Rivets	Nil.			1	14	0
Fishbolts and nuts	Nil.			4	5	0
Dogspikes, gibs, cotters, and keys ...	0	7	0	2	15	0

Tinplate.—The Tariff Board, after reviewing the progress made by the Tinplate Company of India Ltd. expressed the opinion that no industry had made better use of its opportunities. The fall in the price of tinplate had been accompanied by a drop in the price of raw materials. The gross surplus of realisations above costs amounted during the last seven years of protection, to nearly Rs.95 lakhs as compared with Rs.91½ lakhs estimated by the Board in 1926. A capital reconstruction of the Company took place in 1927-29 which reduced the liabilities by Rs.105 lakhs. Debenture debt is being rapidly paid off and should be extinguished within four years. The Board suggested, however, that in future more of the surplus should be set aside for expenditure on the works. On a review of the costs of the industry and of import

prices, the Board recommended a duty of Rs.38 per ton on tinplate imported from the United Kingdom and Rs.59 per ton on that imported from other countries.

Wire and Wire Nails.—The Board stated that the works of the Indian Steel and Wire Products Company at Tatanagar will have a maximum capacity of 45,000 tons per annum. They will produce 12,000 tons of wire and nails and 30,000 tons of small bars and sections. The normal consumption of wire and wire nails in India they found to be 28,000 tons a year and of small bars and sections about 70,000 tons. There was, therefore, a sufficient market for the industry. They assumed that the Tata Company would supply billets to the industry at Rs.64 per ton and estimated the fair selling price on this basis.

The Board recommended for wire rod, small bars and sections the same duties they had fixed for bars of the classes already protected, viz. : Rs.10 on imports from the United Kingdom and Rs.39 on imports from other countries. They recommended the same duty on both wire and wire nails, viz. : Rs.25 per ton on imports from the United Kingdom and Rs.60 on those from other countries. The severest competition in wire products was being experienced from Japan. The Board proposed that dumping prices lower than those they had assumed in determining the duty should be dealt with by the operation of the provision for off-setting duties. The protective duties on wire and wire nails should be confined to those classes which are already protected. Wire used for fencing would continue to be exempt from the protective duty. They were unable to recommend protection of the manufacture of screws.

Iron and Iron Products.—The Board examined the application from the Bengal Iron Company and the Mysore Iron Works for protection of cast iron pipes. They found that the combined capacity of the two works, viz. : 75,000 tons, was 25,000 tons more than the estimated normal Indian consumption. Protection was required not for development but against the abnormal competition of Japan. They found that no duty was required on cast iron pipes from the United Kingdom but they recommended a duty of Rs.57-8-0 per ton on imports from other countries. They rejected the claim that a protective duty should be imposed on steel pipes and asbestos pipes.

As regards foundry pig iron, the Board suggested that arrangements should be made to supply foundry iron to Indian foundries that require good quality iron at prices not higher than those charged to the associated companies and not exceeding export prices by more than Rs.10 per ton. They also recommended that the manufacturers of pig iron should supply iron to foundries that wish to compete in the export market for cast iron products at

a price not exceeding the export price. They thought it premature, however, to consider the grant of a bounty on such exports.

The Iron and Steel Duties Act, 1934.—The Government of India, after carefully examining the recommendations of the Tariff Board outlined above, decided to adopt them practically in their entirety and, in July, 1934, introduced a bill to provide for the modification and continuance of the protection afforded to the iron and steel industry in British India and to impose an excise duty for revenue purposes upon certain steel.*

The Bill, as introduced in the Assembly, contained all the principal recommendations of the Board including the precise differential duties already specified, the removal of even revenue duties from British structurals and plates and the removal of all duties other than the revenue duties on blooms, billets and slabs which constitute the raw material of the re-rolling industry. As the recommendations of the Board involved a very considerable reduction in the level of import duties which would result in an actual loss of revenue of Rs.25 to Rs.30 lakhs per annum, it was found necessary to impose an excise duty of Rs.4 per ton on the production of steel ingots and to impose a countervailing customs duty equivalent to the excise duty on steel ingots, such countervailing duty to be additional to the protective duties recommended by the Board and alternative to the ad valorem revenue duties on articles in respect of which protection had not been granted.

The Commerce Member, after stressing that the Board's recommendations should be accepted as a whole, announced to the House that His Majesty's Government in return for the benefits United Kingdom trade would derive from the differential duties had agreed to continue the free entry of Indian pig iron into the United Kingdom. He called attention to the powers to impose offsetting duties to prevent the scheme of protection being defeated by unforeseen contingencies and to the power to lower duties if unforeseen contingencies made the present level of duties unnecessarily high. Such a contingency would arise in respect of the suggestion made by the Board in connection with fabricated steel, the product of the United Kingdom. He then proceeded to deal with two matters, which formed the subject of special comment by the Tariff Board, namely, the supply of billets to the re-rolling industry and the supply of tin bar to the Tinplate Company. Sir Joseph Bhore said :—

> " The importance of the rerolling industry to the country has been stressed by the Tariff Board and the Tariff Board has found that some,

* The official report of the speech of the Hon. the Commerce Member in moving that the Bill be referred to a Select Committee, and a copy of the speech of the Hon. the Finance Member dealing with the revenue aspects of the Bill and particularly the excise duty are available at the Department of Overseas Trade.

at any rate, of the complaints of the monopolistic attitude of Tatas towards subsidiary companies are not without foundation. We propose to levy a revenue duty on billets for rerolling with, however, a proviso. The Board has found that normally the fair price for imported billets is Rs.64 a ton at port without duty. If Tatas are able to sell their billets at this price they would be making a very good profit indeed. If, therefore, the Government are satisfied that Tatas are refusing without good reason to sell billets to the rerolling industry, or if they are demanding a price which is higher than Rs.64 plus, of course, the excise duty, or if they are unable to meet the demand, then the Government will reduce the revenue duty to the extent that may be necessary to enable the rerolling mills to obtain their billets at the price which I have mentioned, namely, Rs.64 plus the excise duty.

There remains the question of the tinplate industry. The Tariff Board found that the fair selling price of Tatas' tin-bar is the same as the price of semis at port, namely, Rs.64 per ton without duty. Under the agreement, however, which subsists between the Tata Iron & Steel Company and the Tinplate Company, the latter have to pay a price of Rs.83 a ton for their tin-bar until the end of 1936 and, after then, it will drop to Rs.74 a ton over the whole period of protection. This is excessive having regard to the estimated fair selling price of Tatas' tin-bar and entails an unnecessarily high protection for tinplate. If the average price of tin-bar to the Tinplate Company could be reduced to Rs.64 a ton, it would be possible, the Board points out, to reduce the duty on tinplate by something like Rs.13·3 a ton. The Tariff Board therefore suggest that the agreement between the two Companies should be revised so as to allow for the purchase of tin-bar at the fairer rate of Rs.64 a ton. We endorse that suggestion, though, of course, the excise duty would have to be added on to Rs.64. I would point out that if, by the end of March, 1935, Tatas have not been able to modify their arrangements with the Tinplate Company more in accordance with the fair selling price of their tin-bar, Government will have to consider what steps they should take to prevent an excessive profit being made upon this item and the users of tinplate being unnecessarily penalised."

The Bill in Select Committee.—Opposition in the Assembly crystallised on the proposal to remove the revenue duty of 10% on British structurals and plates which was strongly opposed by even the unofficial European group. Opinions were also expressed that if the duties on galvanised sheets were imposed at the uniform standard rate of Rs.40 per ton, there would be no loss of revenue and consequently no necessity for an excise duty. To this argument, Sir James Grigg, the new Finance Member replied that the considerable cheapening of sheets was, in Government's view, one of the most valuable features of the report as it would be of such service to the agricultural community. The reduction would amount to roundly Rs.2 on each sheet of the size ordinarily used by the agriculturist. He also pointed out that it was proposed to remove the revenue duty on British structurals and plates solely in the interests of the fabricating industry and with the object of stimulating the consumption of tested steel in India which was so largely used in capital works. The yield of 10% duty would next year be well below Rs.2 lakhs, a figure which provided no solution of the revenue problem.

After much discussion the Select Committee commended the Bill to the House subject to the following modifications :—

(*a*) the imposition of an alternative revenue duty of 10% on British tested structurals and plates,

(*b*) the postponement of the operation of the new duties imposed by the Bill until 1st November, 1934, and

(*c*) the increase of the countervailing duty on tinplates and tinned sheets from 1⅓ to 1½ times the excise duty on steel ingots in view of the wastage of steel incurred in manufacture.

The Bill eventually passed the Assembly on the 27th August, 1934, without a division.

The Position of the United Kingdom Steel Exporter.—We have seen that the representatives of the United Kingdom Steel Industry, in their evidence to the Tariff Board, set out to secure three main objectives :—

(1) the free entry if possible of British steel, failing which low revenue duties only,

(2) adequate differential margins between the duties imposed on British and non-British steel, and

(3) provision for the prompt imposition of offsetting duties should prices of foreign steel fall below anticipated levels.

All three objectives have been attained in the new Act. Considering first the new duties on British steel, we find that the following rates will, from the 1st November, 1934, be imposed on the main protected items :—

Structurals	1⅓ times the excise duty (i.e. Rs.5·33 per ton) or 10% ad valorem, whichever is higher.
Plates	1⅓ times the excise duty (i.e. Rs.5·33 per ton) or 10% ad valorem, whichever is higher.
Bar and Rod	1⅓ times the excise duty (i.e. Rs.5·33 per ton) plus Rs.10 per ton or 10% ad valorem, whichever is higher.
Black Sheets	1⅓ times the excise duty (i.e. Rs.5·33 per ton) plus Rs.11 per ton or 10% ad valorem, whichever is higher.
Galvanised Sheets ...	1⅓ times the excise duty (i.e. Rs.5·33 per ton) plus Rs.10 per ton or 10% ad valorem, whichever is higher.
Tinplates	1½ times the excise duty (i.e. Rs.6 per ton) plus Rs.38 per ton.
Rails (30 lbs. and over) and fishplates therefor.	1⅓ times the excise duty (i.e. Rs.5·33 per ton) or 10% ad valorem, whichever is higher.
Rails (under 30 lbs.) and fishplates therefor.	1⅓ times the excise duty (i.e. Rs.5·33 per ton) plus Rs.10 per ton or 10% ad valorem, whichever is higher.
Steel Sleepers and sleeper bars.	1⅓ times the excise duty (i.e. Rs.5·33 per ton) or 10% ad valorem, whichever is higher.
Bolts and Nuts	1½ times the excise duty (i.e. Rs.6 per ton) or 10% ad valorem, whichever is higher.

Rivets	1½ times the excise duty (i.e. Rs.6 per ton) or 10% ad valorem, whichever is higher.
Wire (other than barbed or stranded wire, wire-rope or wire netting; and iron or steel wire nails).	1½ times the excise duty (i.e. Rs.6 per ton) plus Rs.25 per ton.
Blooms, billets and slabs	The excise duty (Rs.4 per ton) or 10% ad valorem, whichever is higher.

The following table gives in column 1 the percentage *ad valorem* incidence based on the landed prices of imported material, exclusive of duty, which are given on page 54 of the Tariff Board Report. In column 2 will be found the alternative revenue duty, where this is leviable, and in column 3 we arrive at the percentage duty which will actually be levied on the basis of the landed prices without duty taken by the Tariff Board :—

Description.	Countervailing duty with or without protective additions = %	Alternative revenue duty = %	Percentage actually leviable.
Blooms, billets and slabs ...	6·25	10	10
Structurals	4·71	10	10
Plates	4·67	10	10
Bar and Rod	16·00	10	16
Rails (30 lbs. and over) ...	4·71	10	10
Sleepers	6·20	10	10
Black sheets	13·72	10	13·72
Galvanised sheets	9·58	10	10
Tinplates	16·17	—	16·17

Only in the case of bar and rod, black sheets and tinplates do the duties exceed the very moderate level of 10% *ad valorem*, while we have seen that, in the case of tinplates, if the cost of tin-bar to the Indian Tinplate Company is reduced to Rs.64 per ton, a reduction of Rs.13·3 per ton in the import duty on tinplate would be possible.

Turning to the differential margins between the duties imposed respectively on British and non-British steel, it is practically impossible to assess the precise difference as the duties on British steel are, in almost every case, on an *ad valorem* basis which varies with fluctuating prices whereas those on foreign steel are almost all specific duties. The duties on foreign steel recommended by the Tariff Board are as follows :—

	Per ton. Rs.
Structurals	43
Bars	39
Plates	25
Black Sheets	32
Galvanised Sheets	40

These margins will be reduced in most cases by the whole or part of the 10% *ad valorem* duty on British steel. It is estimated that a very considerable proportion of the trade formerly supplied by the Continent will be diverted to works in the United Kingdom.

The third objective, viz., offsetting duties, is adequately met by Clause 2 of the Act which provides that if the Governor-General in Council is satisfied, after such enquiry as he thinks necessary, that any duty imposed on any article by Part VII of the second schedule has become ineffective or excessive for the purpose of securing the protection intended to be afforded by such duty to a similar article manufactured in India, he may, by notification in the Gazette of India, increase or reduce such duty to such extent as he thinks necessary either generally or in respect of such article when imported from or manufactured in any country or countries specified in the notification, provided that the duty leviable on any such article shall in no case be less than the duty leviable on a like article of British manufacture.

The Government of India gave a further assurance to the Select Committee that they will use their powers under the Indian Tariff Act in accordance with the following principle expressed on page 36 of the report of the Indian Delegation to the Imperial Economic Conference, Ottawa, 1932 :—

> "We regard it as indispensable that, as soon as the Government of India are satisfied that the price (i.e. of imported articles) has been cut, the additional duty should be imposed promptly without the delay inevitably occasioned by a Tariff Board enquiry. The amount of the additional duty need not be limited to the amount of the price reduction, but should be of such an amount as to make clear the intention of the Government of India to make the agreement effective."

A further objective sought by the United Kingdom Steel Industry was the conclusion of an agreement of mutual co-operation between the two industries, by the terms of which, while providing for the full output of the Tata Company and the possible further development of the steel industry in India and of secondary industries using iron and steel products, the United Kingdom producers should secure the greatest possible share of India's requirements surplus to Indian production. The United Kingdom steel delegation, after making tentative approaches to the Indian industry, soon realised that progress was impossible until the tariff framework, within which it was possible to operate, had been definitely settled for a period of years. The Tariff Board referred to the subject in their report in the following terms :—

> "The National Federation of Iron and Steel Manufacturers of the United Kingdom have suggested the desirability of making arrangements for co-operation in the Indian market between the Steel industries in the two countries. While the Federation recognise that the Indian industry should have the first claim on the Indian market to the extent of the whole of its output, they propose that the balance of the Indian market for both tested and untested steel should be supplied by the steel industry in the United Kingdom at prices corresponding to the fair selling prices fixed for the Indian industry. Obviously the working of an arrangement of this character will depend very much on the detailed provisions embodied in it and on the amount of good will and co-operation between the parties to the agreement. Pending the

decision of the Government of India regarding the continuance of protection, neither the British nor the Indian industry is naturally in a position to state the exact terms on which such an arrangement could be made. To some provisions suggested by the Indian industry the Tata Iron & Steel Company has already raised objections. It seems to us, therefore, of little practical advantage at this stage to discuss in detail the tentative suggestions submitted by the National Federation in this connection.

That in the present unsettled conditions of world trade the interests of national industries can be safeguarded more effectively by trade agreements than by Tariff adjustments is generally admitted. The stability of British steel prices in India during the past few years as compared with Continental prices strengthens the suggestion that there is greater certainty of stability of prices being maintained by agreement with the steel industry in the United Kingdom than with that of other countries. How far the interests of the Indian industry and of the Indian consumer can be safeguarded under an agreement is however a question which would require careful consideration. It is obvious that any agreement should provide for the progressive development of the Indian industry either by the expansion of the present works or by the erection of other works including re-rolling mills. To make the necessary provision for this in a workable manner in the agreement may present greater difficulties than is imagined. It is possible that price arrangements between two industries to the exclusion of others may lead to an increase in prices to the detriment of the consumer, since it often happens that agreed prices in such cases are regarded as minimum prices by the manufacturers. The provision for flexible duties in the Steel Protection Act is the only safeguard against such an increase in prices, but prompt application of such duties is essential if they are to be effective."

The fiscal limitations, within which co-operation between the two industries is possible, are now laid down for a period of seven years. The need for safeguarding the interests of the consumer, on which the Tariff Board properly laid stress, is provided for by the differential duties and by Clause 2 of the Act which deals with the prompt application of offsetting duties. The way is therefore clear for a rapprochement between the two industries. It would be difficult to find within the Empire two industries which provide such favourable scope for co-operation. United Kingdom steel production is now organised within the fold of the British Iron and Steel Federation whose executive can speak with one voice for practically the whole industry in the United Kingdom. Indian steel production is at present concentrated in one firm—the Tata Iron and Steel Company, Ltd. The leaders are in touch and the governing principles for complementary agreements have already been tentatively outlined by the United Kingdom representatives who now await a responsive move from the Indian side. It is to be hoped that, on the firm foundations which have now been laid, the leaders of these two great industries may be able to guide the development of the Indian market in their mutual interests in a spirit of co-operation rather than of competition, securing to the Indian consumer the most efficient service at the minimum economic price, thereby increasing the iron and steel consumption of India, expediting the construction of her essential capital projects and contributing substantially to the economic welfare of the two countries.

CHAPTER III

ANALYSIS OF THE WORKING OF THE OTTAWA TRADE AGREEMENT, PARTICULARLY FROM THE STANDPOINT OF THE UNITED KINGDOM EXPORTER, TO THE END OF THE FISCAL YEAR 1933-34.

For most of the statistics and facts which are presented in this Chapter, I have freely drawn upon the special report compiled by the Director-General of Commercial Intelligence and Statistics for the information of the Committee of the Indian Legislature, appointed to consider the working of the scheme of preferences.

1.—PREFERENCES ACCORDED BY THE UNITED KINGDOM TO INDIA.

Before dealing with the principal object of this analysis, namely, an examination of the advantages secured by United Kingdom exporters to the Indian market as a result of the Ottawa preferences, it will be of interest to include a brief survey of the benefits derived by Indian traders from the substantial preferences accorded to them in the United Kingdom market. There are many factors which make an examination of these benefits one of considerable difficulty. Apart from the overriding difficulty of isolating the effects of the preferences from the effects of other factors, the following disturbing elements have to be taken into account. Firstly, the effects of major movements in the trade cycle. Thus, during the last four years of unprecedented world depression, any tendency of a preference to stimulate trade may easily be counteracted by abnormal factors, resulting from the depression, which operate in the opposite direction. It is consequently difficult to measure the effects of one particular factor, such as preference, on the trade in and production of any single commodity. Secondly, there are certain factors which have a particular bearing on international trade, e.g., tariff policies of consuming countries which, by restrictions of all kinds resulting from the application of the doctrines of economic nationalism, result in a serious artificial contraction of the usual channels of trade. Thirdly, exchange fluctuations and monetary disturbances tend to obscure the effects of preferences either by exaggerating their benefit or counteracting their operation. Fourthly, vital changes in demand and supply are of paramount importance in the case of an agricultural country such as India. A bumper crop or a crop failure in one of the principal

producing countries would produce changes in market conditions infinitely greater than those resulting from the relatively weak factor of preference.

In addition to these general considerations, there are many limitations of statistical data peculiar to Indian trade which preclude the presentation of an absolutely accurate analysis. Thus, a large proportion of Indian exports are shipped " for orders " at some particular port, e.g., Port Said or Marseilles, the final destination being intimated to Indian Collectors of Customs at a much later date. Variations occur in the practice of recording statistics in India and in the United Kingdom. Transit and re-export trade confuse the issue. Articles called by the same name do not connote the same thing in the trade returns of the various countries.

Subject to these considerations, however, a study of the statistics shows that, in almost every instance, and particularly in the case of tea, linseed, rice, pig iron and semi-manufactured steel, the preferences granted by the United Kingdom have been of material value to the Indian export trade. Even where increased trade has not resulted, as in the case of wheat, this result has been due to the operation of special factors. It will be convenient to summarise the conclusions reached by the Director-General of Commercial Intelligence in the case of the principal items :—

Wheat.—Owing to the fact that India has not, at the moment, an exportable surplus of wheat and internal prices are above world parity, exports of wheat from India were of no importance and the preference has not had any significance. This was anticipated by the Indian Delegation at Ottawa, who were anxious to secure the preference against the time when the Sukkur Barrage and other irrigation schemes might be expected to result in a substantial increase in the exportable surplus.

Rice.—Although exports to the United Kingdom have increased materially, there has been such an over-supply of rice in the world that it would not be reasonable to expect any increase in acreage in Burma as a result of the preference. Shipments to the United Kingdom rose from 41,000 tons to 90,000 tons, but it should be remembered that there are a large number of consignments " for orders " which are credited to the United Kingdom in the first instance but are later transferred to other countries.

Vegetable Oils.—The total trade and the trade with the United Kingdom have shown substantial increases in the last two years since preference became operative.

Linseed.—The short crops in the Argentine and the U.S.A. enormously increased the demand for Indian linseed in the world's markets and particularly in the United Kingdom. While the preference continues, the United Kingdom market will remain a sheltered market for Indian linseed. The 10% preference has

certainly benefited India during the year 1933-34 and may be expected to do so in 1934-35 in view of a further short crop in the Argentine. Exports to the United Kingdom rose from 14,000 tons in 1932-33 to 175,000 tons in 1933-34. The increase in the exports to the United Kingdom was much greater, both actually and as a percentage, than in the case of other countries.

Tea.—The effects of preference have been completely obscured by the Tea Export Restriction Scheme. Preference has not affected the distribution of the trade in the United Kingdom. The reduction in the total imports was proportionately distributed over all the suppliers. Owing to the artificial rise in prices, India was able to sell in the United Kingdom a proportionately equal amount of tea at better prices. This result must have been made possible, to a certain extent, by the preference she received from the United Kingdom.

Hides and Skins.—In tanned hides, India's share increased both absolutely and relatively. It is clear that preference helped India to increase her trade with the United Kingdom at the cost of foreign competitors. Similarly, in the case of tanned skins preference has been of material assistance. In the trade in undressed leather, the preference has also been beneficial.

Jute Manufactures.—It is possible that, but for the preference, the total trade might have fallen off and so the preference may have had some insurance value.

Teak.—As India supplies such a large proportion of United Kingdom imports, the preference is of value in enabling her to maintain this market.

Woollen Carpets and Rugs.—The exports have benefited greatly as a result of the preference. The share of the United Kingdom rose from 3,537 lbs. in 1931-32 to 4,283 lbs. in 1932-33 and 6,710 lbs. in 1933-34. The total percentage share of the trade with countries enjoying preference rose from 80 in 1932-33 to 85 in 1933-34.

Tobacco.—As regards cigars, the immense value of the preference has to be emphasised inasmuch as India would have been unable to retain what market she has in the United Kingdom but for this preference. In unmanufactured tobacco, the trade has increased, both absolutely and relatively, and this must largely be credited to preference. In manufactured tobacco, the preference appears to have been helpful only to a slight extent.

Castor Seed.—The preference has enabled India to capture the United Kingdom market from her competitors and has been of very definite advantage to her.

Magnesite.—The preference would appear to have been distinctly helpful. India's share of the United Kingdom market rose from 1,100 tons in 1932 to 1,400 tons in 1933. These shipments consist entirely of magnesite dead burnt and lightly calcined.

Sandalwood Oil.—The United Kingdom share increased both absolutely and relatively. As the volume of exports to other countries remained practically unchanged this involved no diversion of trade and the preference would appear to have been definitely of assistance to India.

Granite Setts and Kerbs.—The preference has undoubtedly opened up a new line of trade. United Kingdom imports from India in 1932 amounted to 2,100 tons and in 1933 to 11,400 tons. This increase appears to have been effected by an expansion of the consumptive demand.

Lead.—Preference has enabled India to capture an increased share of the United Kingdom market from other countries. In 1932 India shipped 44,000 tons or 17% of the total trade. In 1933 her share amounted to 55,000 tons or 19·5% of the total trade.

Lac.—Exports to the United Kingdom have more than trebled in quantity while the percentage share is nearly doubled. This great increase must, in large measure, be credited to the preference which Indian natural lac received over the synthetic substitutes.

Raw Cotton.—As a result of the energetic measures taken by Lancashire to encourage the increased use of Indian cotton, Indian shipments have more than doubled from 24,000 tons in 1932 to 49,000 tons in 1933. In the former year India supplied 4% of the United Kingdom total imports and in 1933 no less than 8%.

Pig Iron.—India is at present the predominant supplier of pig iron to the United Kingdom and has been able to capture the market from foreign countries. This must be largely due to the preference she received. In 1932 the United Kingdom drew 61·8% of her imports from India whereas in 1933 India accounted for no less than 86·6%

Sheet Bars.—The exports to the United Kingdom were 9,000 tons in 1931-32, 16,000 tons in 1932-33 and 41,000 tons in 1933-34. Indian exports of sheet bars have obviously profited greatly from the Agreement.

Magnesium Chloride.—In the United Kingdom trade returns statistics of imports of magnesium chloride are not separately recorded. It is not possible, therefore, to arrive at any definite conclusion. It is significant, however, that the imposition of the new duty on non-Empire chloride has coincided with the increase

in the cum-duty London price of German magnesium chloride by £1 to £6 10s. per ton since November, 1932.

Paraffin Wax.—The position is obscure and, in view of transit trade, it is difficult to draw any accurate conclusion from the United Kingdom import figures. On the whole it appears that exports of paraffin wax to the United Kingdom have increased to some extent though they have not reached the level of earlier years. This is probably due however to the lower production of this item in the last three years.

Coir Mats and Mattings.—India's share in the United Kingdom trade rose from 5·3 million yards in 1931 to 6·8 million yards in 1932 and 8·4 million yards in 1933. The percentage share also rose from 98 to 99. Thus, preference has helped India to increase her trade and practically to eliminate whatever competition there was from other countries.

Oilseed Cakes and Meal.—India's share in the United Kingdom market rose from 101,000 tons or nearly 24% of the total imports in 1932 to 159,000 tons or nearly 41%. Thus, preference has enabled India to capture the United Kingdom market from her competitors to a large extent.

Hemp.—India's share of the United Kingdom market rose from 3,400 tons in 1932 to 4,000 tons in 1933. The percentage share also showed a very small increase. The preference seems to have conferred a slight advantage on India.

Groundnuts.—India's share of the United Kingdom market was 58,000 tons or 60% in 1932 and 70,000 tons or 53% in 1933. Thus, while the preference has conferred an advantage, other Empire countries have benefited to a greater extent than India.

SUMMARY OF BENEFITS SECURED BY INDIAN TRADE.

In Appendix A to this chapter, page 114, will be found an interesting table, compiled by the Director-General of Commercial Intelligence and Statistics, which purports to show, item by item, the advantage to India on landed cost in the United Kingdom. This is arrived at by multiplying the total declared values (f.o.b.) of India's exports to the United Kingdom in 1933-34 by the rate of preference. As the rate of preference, however, is granted by His Majesty's Government on the c.i.f. values in the United Kingdom, this method of computation underestimates the preferential advantage received by India. It is pointed out, however, that this defect is not important because specific preferences have been granted on tea, tobacco and rice which are the three most important items and between them account for an advantage of Rs.597 lakhs out of a total of Rs.802 lakhs.

Apart from the above three items of tea, tobacco and rice, the most important advantages, according to this very approximate method of calculation, were secured by :—

	Rs. (lakhs).
Jute Manufactures	32
Tanned Skins	29
Tanned Hides	24
Linseed	20
Lead	13
Woollen Carpets and Rugs	11
Coir Mats and Mattings	9
Oilseed Cake and Meal	8
Raw Goat Skins	7¾
Paraffin Wax	5½
Teak and other hard woods	4
Bran and pollard, rice meal and dust	4
Groundnuts	3½
Castor Seed	2
Pulses	1¾
Castor Oil	1½
Coir Yarn	1½

*The table shows a total advantage to India of Rs.*802 *lakhs—say* £6,015,000.

II.—PREFERENCES ACCORDED BY INDIA TO THE UNITED KINGDOM.

We have seen in the examination of the effect of the preferences on India's exports, the difficulty of isolating the direct results of Imperial preferences from those of the numerous other factors operating at the same time. It is even more difficult, in the case of the import trade, to disentangle the preferential issue from the web of confusing influences in which it is enmeshed. In the first place it is necessary to stress the following depressing factors on imports from the United Kingdom :—

(1) Severe curtailment of India's purchasing power as a result of the catastrophic fall in agricultural prices. Moreover, prices of Indian produce and exports fell to lower levels than those of imported goods.

(2) India is a price market and cheapness is the deciding factor in determining the purchases of India's population. Imports from the United Kingdom are generally of higher quality and consequently more expensive than the low-grade and cheap imports from Japan and the Continent. As a result, imports from the United Kingdom in times of depression such as the present suffer more than the cheap imports from other countries. The Director-General considers that " this disadvantage to the United Kingdom would have been much greater had it not been for the preference which enabled the United Kingdom to compete on more favourable terms with the cheap imports from other countries ".

Other abnormal factors, which tend to obscure the effects of the preferences are :—

(*a*) The departure by the United Kingdom from the gold standard in 1931, which improved the competitive power of United Kingdom goods vis-a-vis the products of gold standard countries. This resulted in a slight improvement in 1932-33 and part of 1931-32. This advantage,

however, was partly neutralised by the depreciation in the U.S.A. dollar in 1933 and consequent revival of competition.

(*b*) The depreciation of the Japanese exchange and its serious effect on imports from all countries, but particularly on those from the United Kingdom.

(*c*) The restrictive result of the enhanced revenue duties and emergency surcharges in 1931. By increasing the cost of importing goods from overseas, these duties gave fortuitous protection to many Indian industries and have been responsible for a considerable advance in indigenous production which will have an increasingly restrictive effect on imports from all countries, but particularly from the United Kingdom.

(*d*) The severe political boycott of goods of United Kingdom origin in 1930 and part of 1931 had reduced imports from that source to an entirely abnormal level, which did not reflect the true economic position. Consequently, a material improvement in the United Kingdom position was inevitable after the boycott and political feeling subsided in 1931.

Most of the disturbing factors noted above tended to depress imports from the United Kingdom. Against these must be set the preferential duty of 10%. As the Director-General states—"if the preferential duty enabled the United Kingdom to maintain her position or even moderated the fall so that the imports from her did not suffer to the same extent as imports from other countries, then it may be concluded that the United Kingdom profited from the preferences granted to her."

We shall now briefly examine the individual items listed in Schedules F and G of the Ottawa Agreement as enjoying a preferential margin of 10% except in the case of motor vehicles, parts and accessories (excluding rubber tyres) on which 7½% is granted. More detailed information with regard to the position of these items will be found in Chapter V.

Apparel.—Three items, viz., apparel (including drapery, uniforms and accoutrements); caps, bonnets and hatters ware and second-hand clothing enjoy a preference of 10%. The total trade rose from Rs.66 lakhs in 1932/33 to Rs.69 lakhs in the year under review. The United Kingdom share, however, fell from 33 to 29% on account of the increasing imports of Japanese goods at prices far below the United Kingdom level.

Arms and Ammunition.—In the case of cartridge cases the total trade fell from Rs.15 to Rs.11 lakhs on account of reduced purchasing power. The United Kingdom contribution also fell from Rs.13½ to Rs.10 lakhs but the percentage advanced from 90 to 91. In this case the preference enabled us to retain our share of a greatly diminished trade. As regards firearms, total imports fell from Rs.11¾ to Rs.10 lakhs, United Kingdom imports from Rs.9½ to Rs.7⅓ lakhs and the percentage from 80 to 74. The whole brunt of the reduced trade has therefore been borne by the United Kingdom.

Asbestos Manufactures.—In the case of packings, the total trade fell from Rs.2·68 to Rs.2·25 lakhs and the United Kingdom share from Rs.2·13 to Rs.2·03 lakhs. On the other hand the

percentage share rose from 79 to 90. As regards other asbestos manufactures, the total trade rose from Rs.10·94 to Rs.13·71 lakhs, United Kingdom imports from Rs.7·33 to Rs.9·19 lakhs and the percentage remained constant at 67. We have more than held our own against Germany and Belgium.

Boots and Shoes (all leather).—The total trade fell from Rs. 14·22 to Rs.12·16 lakhs, the United Kingdom share from Rs.5·33 to Rs.5·26 lakhs but the percentage rose from 37 to 43. The aggregate trade has fallen to one-half the level of the average of the three years ended 1929/30 owing to the substitution of Japanese rubber-soled footwear and the competition of indigenous factories. The United Kingdom slightly increased her proportion of a diminishing trade.

Brushes.—Total imports fell from Rs.12·54 to Rs.10·97 lakhs, Arrivals from the United Kingdom, however, rose from Rs.3·92 to Rs.4·72 lakhs and the percentage share advanced from 31 to 43. The United Kingdom have been able to encroach upon the trade in foreign toilet and industrial brushware.

Building and Engineering Materials.—The total imports under the classes subject to preferential treatment fell from Rs.50 to Rs.42 lakhs. United Kingdom shipments fell from Rs.24 to Rs.21 lakhs while the percentage rose from 48 to 50. The reduction in United Kingdom shipments was almost wholly in cement where the United Kingdom was able to improve her position *vis-à-vis* other overseas suppliers from 41 to 48, though she could do little against the competition of Indian works.

Buttons (metal).—The total trade rose slightly from Rs.9·47 to Rs.9·54 lakhs, the United Kingdom contribution however rose from Rs.60,000 to Rs.1·05 lakh and the percentage share from 6 to 11. Continental competition has been effectively met.

Chemicals and Chemical Preparations.—The total imports of chemicals remained fairly steady and declined from Rs.271 to Rs.270 lakhs. On the other hand, United Kingdom shipments rose from Rs.140 to Rs.149 lakhs and the percentage proportion from 52 to 55. Preferences are not granted on the whole range, but it should be noted that the improvement mainly results from increased imports of sodium carbonate and caustic soda, both of which enjoy preference. In the former, the United Kingdom share rose from 77 to 79% and in the latter from 81 to 84%. Among other preferential items, the share of the United Kingdom—both actual and relative—in the imports of ammonia and salts thereof; disinfectants (other than naphthalene); bichromate of soda and cyanide of sodium increased while in potassium bichromate there was a decrease. A reference to Appendix B will show that the United Kingdom enjoyed a total advantage of Rs.15 lakhs on the preferential items of chemicals and there is no doubt that this advantage will be consolidated and extended as trade improves. The

leading United Kingdom group has taken full advantage of its widespread and efficient organisation to expand its trade and it is noteworthy that the benefit of the preferential rate has been passed on to the consumer, thus stimulating an increased turnover and redounding to the advantage of Indian industries and poor consumers.

Cordage and Rope of vegetable fibre.—The aggregate trade under this head, which excludes cordage and rope of jute and cotton, advanced from Rs.5·83 to Rs.5·91 lakhs. Arrivals from the United Kingdom rose from Rs.2 to Rs.2·49 lakhs and the percentage from 34 to 42. In this case also United Kingdom goods displaced those of foreign competitors.

Cork Manufactures.—The share of the United Kingdom was reduced from 39 to 10% in the year 1932/33 as a result of a large increase in the imports from the Philippine Islands. During 1933/34 there was a further increase in the absolute share of the Philippines but, notwithstanding this, the contribution of the United Kingdom more than doubled, the percentage share rising from 10 to 13. British supplies at 1,000 cwt. valued at Rs.½ lakh are still insignificant compared with total imports returned at 8,000 cwt. valued at Rs.5 lakhs. It must be remembered, however, that the raw material has to be imported into the United Kingdom.

Cutlery other than Pruning Knives.—Aggregate imports rose slightly from Rs.23 to Rs.24 lakhs, United Kingdom shipments from Rs.5·3 to Rs.6·4 lakhs and the percentage from 23 to 27. On the other hand, German trade declined from Rs.14⅓ lakhs or 6% to Rs.13¾ lakhs or 57%.

Drugs and Medicines.—The preferences are limited to proprietary and patent medicines and "other sorts" (excluding aloes, asafoetida, camphor, cocaine, morphia, opium, sarsaparilla and storax). As regards proprietary and patent medicines, the total trade fell from Rs.38 to Rs.31 lakhs but the share of the United Kingdom rose from Rs.15 to Rs.16⅓ lakhs and the percentage from 40 to 53. The share of France fell from 16 to 6%, U.S.A. from 14 to 12% and that of Germany remained steady at 19%. In other kinds of drugs also the share of the United Kingdom showed an increase.

Earthenware and Porcelain.—The preference extends to all types other than pipes of earthenware and sanitary ware. Excluding these items, total imports of earthenware fell from Rs.14½ lakhs to Rs.12⅔ lakhs whereas the United Kingdom share rose from 47 to 51%, that of Japan fell from 34 to 29% and Germany's percentage (including consignments from Holland and Belgium which are of German origin) rose slightly from 10 to 11. The improvement in the United Kingdom position is noteworthy. So far as the trifling imports of electrical porcelain are concerned, the United

Kingdom supplied 24%, Germany 36% and Japan 40%. Other kinds of porcelain comprising cheap tableware and common crockery were drawn from the United Kingdom (4% as compared with 3% in 1932-33) and Japan (91% as compared with 92% in 1932-33). The relatively small preference is of little value in bridging such a wide disparity between United Kingdom and Japanese prices.

Furniture and Cabinetware.—Preferences are accorded to all items except mouldings. Total imports remained stationary at Rs.13 lakhs. United Kingdom imports, however, rose from Rs.6 to Rs.9 lakhs and the percentage share from 47 to 65. The improvement in United Kingdom trade was due entirely to larger imports of furniture, other than wooden furniture and bedsteads. The increase in the United Kingdom share was both absolute and relative.

Glue.—The total trade advanced from 17,000 to 20,000 cwt. while United Kingdom shipments remained stationary at a little over 4,000 cwt. and the percentage fell from 25 to 22. United Kingdom trade had already fallen from an average of Rs.2 lakhs in the three years ended 1929-30 to Rs.1 lakh in 1932-33. The figure for 1933-34 is Rs.96,000, which shows that the downward movement has been checked.

Hardware (excluding Cutlery and Electroplated Ware).—Preference is accorded on all items under this comprehensive heading with the exception of agricultural implements, buckets of tinned or galvanised iron and glass lamps. The aggregate trade fell from Rs.292 to Rs.281 lakhs. On the other hand, imports from the United Kingdom rose from Rs.85 to Rs.92 lakhs and the United Kingdom percentage from 29 to 33. Prior to 1932-33 the United Kingdom share remained fairly constant around 36%, but in 1932-33, owing to increased competition from Germany and Japan, that share had fallen to 29%. Analysing the schedule we find that in builders' hardware, the United Kingdom share remained virtually unchanged at 18%. In domestic hardware the United Kingdom share rose from 25 to 30%. In enamelled ironware, the United Kingdom percentage, in face of severe Japanese competition, remained unchanged at 6. The British contribution of gas mantles rose from 9 to 14%, but Germany still contributes 75%. In the " omnibus " item of implements and tools (other than agricultural implements and machine tools) the United Kingdom percentage fell from 52 to 49 due to increased competition from the U.S.A. and Germany. The United Kingdom only contributes 1% of the trade in metal lamps, in which Japanese competition has reduced the German percentage from 90 to 69. The trade in safes was trifling and was supplied by the United Kingdom, which also supplied 16% of the stoves (unchanged) while Sweden contributed 72% as compared with 64% in 1932-33.

Instruments, Apparatus and Appliances.—The aggregate trade expanded from Rs.385 to Rs.402 lakhs, the United Kingdom contribution from Rs.194 to Rs.206 lakhs and her percentage share from 50 to 51. In electrical instruments and apparatus the increase in the United Kingdom share was most marked and rose from 52 to 57%. In raw cinematograph films her share advanced from 18 to 20%. In photographic apparatus, however, the percentage fell from 44 to 43 corresponding with a decrease in the total imports from Rs.31 to Rs.29 lakhs. As regards musical instruments, the United Kingdom share in pianos, etc., rose from 46 to 55% but that in talking machines fell from 65 to 57%. In wireless apparatus, imports of which remained steady at Rs.10 lakhs, the United Kingdom share fell from 81 to 56%, owing to the fact that arrivals during the year were mainly domestic equipment, in which there is keen competition from Holland and the U.S.A.

Leather.—The items subject to preference are tanned or dressed skins, unwrought leather, leather cloth and other manufactures of leather (excluding pickers, roller-skins, saddlery and harness and bags and trunks). Total imports fell from Rs.36 to Rs.34·28 lakhs. Arrivals from the United Kingdom dropped from Rs.13 to Rs.12½ lakhs but the percentage share remained constant at 36.

Liquors—*Ale and Beer.*—The preference takes the form of specific duties. The total trade declined from Rs.72 to Rs.65 lakhs United Kingdom imports from Rs.45 to Rs.41 lakhs but the percentage share remained steady at 63. The decline in the actual imports was due to a falling-off by 20% in the arrivals of ale and beer in bulk.

Perfumed Spirit.—Imports from all sources increased from 5,000 to 7,000 gallons. United Kingdom consignments also rose from 2,500 to 3,000 gallons, but the percentage share declined from 51 to 43. The fall in the relative share is due to a revival in competition from France and Germany, whence the imports had been abnormally low in the previous year.

Spirit present in Drugs, medicines or chemicals.—Preference is granted on imports from the United Kingdom at the following rates :—

(*a*) If entered in such a manner as to indicate that the strength is not to be tested Rs.4 per Imperial gallon.

(*b*) If not so entered, Rs.3 per Imperial gallon of the strength of London proof.

No separate figures under the first heading are recorded in the trade returns. In the second class, total imports measured in terms of spirit contents, rose from 102,000 to 111,000 gallons, supplies from the United Kingdom rose from 39,000 to 49,000 gallons and the percentage share from 38 to 44.

Machinery and Millwork.—The only items which enjoy preference are sewing and knitting machines and parts, and typewriters and parts. The total trade in the former rose from 39,100 complete machines to 54,900 complete machines. United Kingdom shipments likewise advanced from 27,800 to 39,800 machines and the percentage share from 71 to 72. In typewriters, arrivals from the United Kingdom rose from 241 to 732 but the latter figure makes a poor comparison with a total import of 6,578 machines, of which 5,499 machines were obtained from the U.S.A.

Non-ferrous Metals—*Aluminium, wrought.*—The aggregate trade increased from Rs.22 to Rs.32½ lakhs, United Kingdom shipments from Rs.9½ to Rs.17½ lakhs and the percentage share from 43 to 54.

Brass, bronze and similar Alloys, wrought.—Although the total trade declined from Rs.179 to Rs.138 lakhs, United Kingdom consignments only fell from Rs.55 to Rs.53 lakhs, whereas the United Kingdom share rose from 31 to 38%. The imports consisted mainly of yellow-metal sheets of which the United Kingdom percentage rose from 31 to 37 in marked contrast to the decline in German shipments.

Copper, wrought.—Here again, the imports mainly consist of copper sheets. The total trade, including sheets and rods, fell heavily from Rs.112 to Rs.83 lakhs but United Kingdoom shipments rose from Rs.28 to Rs.38 lakhs and the percentage share from 25 to 46.

German Silver (including Nickel Silver).—The total trade remained fairly steady at 17,000 cwt., but values fell slightly from Rs.12·76 to Rs.12 lakhs. Arrivals from the United Kingdom, however, rose from Rs.2·4 to Rs.2·6 lakhs and the percentage figure from 19 to 22.

Lead, wrought (excluding sheets for tea-chests).—This heading includes pipes and tubes and other manufactures of lead. The total trade improved from Rs.3·4 to Rs.5 lakhs. Arrivals from the United Kingdom likewise advanced from Rs.2·6 to Rs.4·13 lakhs and the percentage share from 77 to 83.

Zinc, wrought.—Total imports rose from Rs.4·87 to Rs.6·12 lakhs, United Kingdom shipments from Rs.1 to Rs.1¼ lakhs and the United Kingdom percentage share from 18 to 21.

Oils—(a) *Lubricating Oils (other than batching oils).*—The aggregate trade increased from 8·5 to 10·8 million gallons in quantity but values declined from Rs.110 to Rs.102 lakhs. Imports from the United Kingdom rose from 1·6 to 2·3 million gallons and from Rs.21 to Rs.26 lakhs, the percentage share advancing from 19 to 22 on the basis of quantity and from 19 to 25 on the basis of value.

(b) *Of paints, solutions and compositions, dangerous, flashing below* 76° *F.*—Total imports rose by 122% from 36,000 to 80,000 gallons. Imports from the United Kingdom advanced by 174% from 11,000 to 30,000 gallons, the United Kingdom percentage of the trade rising from 30 to 37½.

(c) Under *essential oils*, imports of synthetic oils from all sources rose from 7,000 gallons, valued at Rs.3 lakhs to 11,000 gallons valued at Rs.4 lakhs. Imports from the United Kingdom remained stationary at about 1,500 gallons, the percentage share consequently declining from 23 to 13. Measured by values, however, the United Kingdom percentage rose from 5 to 8. The natural essential oils liable to preferential treatment constituted a relatively minor item of trade.

(d) *Vegetable non-essential oils (other than coconut, linseed and groundnut oils, which are not eligible for preference)*.—Imports from the United Kingdom rose by 62% from 16,000 to 26,000 gallons whereas imports from other sources increased only by 10% from 156,000 to 172,000 gallons.

(e) As regards *fish oil*, the total imports diminished from 1,064,000 gallons to 859,000 gallons. Imports from the United Kingdom were reduced concomitantly from 163,000 to 98,000 gallons, but the United Kingdom percentage fell from 15 to 11, this reduction being attributable to increasing competition from Japan and Norway.

Oil Cloth and Floor Cloth.—The total imports receded from 944,000 to 855,000 square yards, but the imports from the United Kingdom rose from 414,000 to 434,000 square yards and her percentage share from 44 to 51.

Packing—Engine and Boiler—of all kinds (excluding Asbestos).—Total imports increased from Rs.2·5 to Rs.2·9 lakhs, the United Kingdom contribution from Rs.2·2 to Rs.2·6 lakhs and her percentage from 90 to 93.

Paints and Colours.—The only exceptions to the 10% preference are barytes, graphite, reduced dry red lead and white lead, reduced dry zinc white and moist zinc white. The imports of those classes which are subject to preference—and they represent the bulk of the trade—rose from Rs.57·63 to Rs.57·71 lakhs. The United Kingdom contribution rose from Rs.35·88 to Rs.39·23 lakhs and her share from 62 to 68%. Notwithstanding severe German competition over a wide range but notably in Paris blue, lithophone dry and coloured dry, and increasing Japanese shipments of dry red lead and white lead, United Kingdom exporters helped to improve their position by means of energetic representation.

Paper.—The main headings subject to preferential duties are packing paper, other kinds of paper (except note and letter paper and envelopes and old newspapers in bags and bales) and paper manufactures. Printing paper (except newsprint) and writing paper being subject to protective duties are not eligible, nor is newsprint. As regards packing paper, imports from all countries fell from Rs. 45·35 to Rs.31·82 lakhs, arrivals from the United Kingdom from Rs.3·5 to Rs.2·8 lakhs, but the United Kingdom percentage rose slightly from 8 to 9. The United Kingdom interest

in this trade is a limited one since most of the supplies are drawn from Scandinavia, which enjoys plentiful resources of cheap wood pulp within easy reach of the mills. The total imports of " other kinds of paper " rose from 94,000 cwt. to 97,000 cwt., the United Kingdom supplies from 13,000 cwt. to 21,000 cwt. and the percentage from 14 to 22. Similarly, as regards paper manufactures, the total trade rose from 25,000 to 31,000 cwt., United Kingdom shipments from 7,000 to 12,000 cwt. and her percentage from 28 to 39. No statistics are available for chrome, marble, flint, poster and stereo-printing papers, which are also eligible for preference.

Pasteboard, Millboard and Cardboard of all kinds (other than strawboard).—Total imports remained fairly constant at 113,000 cwt. The United Kingdom, however, increased her share from 15,000 cwt. to 25,000 cwt., i.e., from 14 to 22%. Germany, Sweden and Norway are the principal suppliers. In manufactures of pasteboard, millboard and cardboard, the United Kingdom enjoys a much more favourable position. Total imports rose from 7,135 cwt. to 9,840 cwt. and the United Kingdom percentage from 54 to 68.

Provisions.—A preferential duty of 10% is granted on canned or bottled fruits, tinned or canned fish, canned and bottled provisions (other than vegetable products), cocoa and chocolate, confectionery and milk condensed or preserved including milk cream. The aggregate trade in these classes fell sharply from Rs.135 to Rs.120 lakhs, but United Kingdom consignments actually advanced from Rs.57·8 to Rs. 58·3 lakhs and the percentage share from 43 to 49. In the average of the three years ended 1929-30 the United Kingdom only supplied 38%, so that it is clear that the preference has enabled United Kingdom exporters materially to improve their relative position in a quasi-luxury trade which has suffered severely from the decline in purchasing power.

Rubber Manufactures.—The aggregate trade declined from Rs.198 to Rs.187½ lakhs. The United Kingdom share by contrast rose from Rs.80 to Rs.116 lakhs and the percentage share from 40 to 62. Arrivals from the United Kingdom at Rs.116 lakhs are actually much in excess of the 1927-28, 1928-29 and 1929-30 average of Rs.99 lakhs. This improvement is very largely due to the exchange advantage enjoyed vis-à-vis the U.S.A. since the abandonment of the gold standard in 1931. Many U.S.A. and other foreign competitors supply the Indian market from their branch works in the United Kingdom. Rubber tyres of all kinds constitute the bulk of this classification, but the United Kingdom share of mechanical rubber goods and miscellaneous goods for industrial and domestic use has also materially improved.

Smokers' Requisites.—The aggregate trade, after falling heavily from Rs.7·4 lakhs in the triennium ended 1929-30 to Rs.2·25 lakhs in 1932-33, recovered to Rs.4·19 lakhs in 1933-34. The United

Kingdom shipments rose from Rs.58,000 to Rs.125,000 and the percentage from 26 to 30.

Toilet Soap.—The total trade rose from 44,000 to 52,000 cwt. and the values from Rs.31 to Rs.32 lakhs. While the United Kingdom's quantitative share remained unchanged at 35,000 cwt. and the percentage fell from 80 to 67, the values declined from Rs.25 to Rs.24 lakhs and the percentage from 80 to 74. Normally, the principal competition encountered is from the U.S.A. followed by Germany, France and Austria. In 1933-34, however, 10,000 cwt. valued at Rs.3 lakhs of Japanese toilet soap at exceptionally low prices depressed the market. To counteract this and protect the indigenous industry, an alternative minimum specific duty of Rs.20 per cwt. was levied on all foreign soaps in December, 1933. The United Kingdom has not been able to maintain her relative position on account of this influx of Japanese soaps at prices which are far below her price range, but she has fared better in competing with the U.S.A. and the Continent.

Stationery (excluding Paper).—(a) *Pencils (excluding slate pencils).*—Owing to the competition of the indigenous industry this trade has receded of recent years, the aggregate imports falling from Rs.8 to Rs.7 lakhs. The United Kingdom contribution, however, rose from Rs.41,000 to Rs.59,000 and the percentage from 5 to 8. Japanese shipments accounted for 59% of the total quantities and 22% of the total values in 1933-34. A 10% preference is of little value in face of low Japanese prices.

(b) *Other Sorts.*—In general stationery there is a valuable trade, which declined from Rs.64 to Rs.59 lakhs. On the other hand, arrivals from the United Kingdom rose from Rs.32½ lakhs to Rs.35 lakhs and the percentage share from 50 to 59.

Haberdashery and Millinery.—The total trade declined from Rs.57 to Rs.45 lakhs, a figure less than half the average of the triennium ended 1929-30. Imports from the United Kingdom also fell from Rs.14 to Rs.12 lakhs but the percentage share rose from 24½ to 26¾.

Woollen Manufactures.—With the single exception of blankets and rugs (other than floor rugs) all woollen and worsted yarn and manufactures are eligible for preferential duties. The most important item is woollen piecegoods, the imports of which fell from Rs.161 to Rs.130 lakhs. The United Kingdom shipments, however, rose from Rs.52½ to Rs.57½ lakhs and the percentage from 33 to 44. Yorkshire suppliers have been able to displace much Continental competition. On the other hand, Japanese competition is increasing in intensity from month to month and the preference is of no avail against the Japanese scale of prices. The only practical solution would be a measure to protect the Indian woollen industry which would contain provision for differential duties on British goods by equating British and Japanese prices to the Indian industry's fair selling prices. It

is anticipated that the Indian Tariff Board will conduct an investigation this autumn.

In the case of worsted yarn for weaving, total imports fell from Rs.15 to Rs.12 lakhs. United Kingdom arrivals, however, advanced from Rs.2 to Rs.3 lakhs and the percentage from 14 to 24. As regards knitting wool, the total trade declined from Rs.18 to Rs.13 lakhs, but United Kingdom shipments increased from Rs.6 to Rs.7¼ lakhs and the percentage from 34 to 54.

Toilet Requisites.—This quasi-luxury trade has been well maintained in view of the depression and reflects the adoption of modern standards of living by the wealthier classes in India. In the triennium ended 1929-30, the aggregate imports were Rs.66 lakhs. They fell to Rs.58 lakhs in 1932-33 and to Rs.56½ lakhs in 1933-34. The United Kingdom share fell " pari passu " from Rs.26 lakhs to Rs.21 lakhs, but recovered to over Rs.22 lakhs in 1933-34, during which year the percentage rose from 36 to 39 and is now the same as in the triennium ended 1929-30—a tribute to the value of the preference.

Toys and Requisites for Games and Sports.—The total trade recovered from Rs.47 to Rs.53 lakhs. The United Kingdom share likewise rose from Rs.10½ to Rs.11½ lakhs while the percentage remained constant at 22. In toys, the United Kingdom percentage fell from 12 to 10% in view of the influx of Japanese toys at prices with which even the German shippers cannot compete. Japan now enjoys 81% of the toy trade. As regards playing cards, the United Kingdom percentage rose from 20 to 22 at the expense of Belgium. Other requisites for games and sports also showed an improvement in the United Kingdom percentage share from 70 to 71.

Umbrellas.—This is becoming predominantly a Japanese trade. Total imports rose from Rs.2½ to Rs.4¼ lakhs, while the United Kingdom share only advanced from Rs.65,000 to Rs.66,000 and the percentage figure fell from 25 to 16. Japan is ousting all competitors and the existing measure of preference is of no avail. The recent imposition of an alternative specified minimum duty of 8 annas each on foreign umbrellas will, it is hoped, equalise competitive conditions.

Umbrella Fittings.—The total imports fell from Rs.25 to Rs.22½ lakhs and arrivals from the United Kingdom from Rs.3 to Rs.2·89 lakhs. The United Kingdom share rose from 12 to 13%. Here again, Japanese prices neutralise the preferential advantage.

Motor Cars.—So far as numbers are concerned, the total imports rose from 6,201 to 9,759 cars, the United Kingdom contribution from 3,958 to 5,348 cars but the percentage fell from 64 to 55. As regards values, the imports advanced from Rs.129 to Rs.177 lakhs, the United Kingdom share from Rs.80 to Rs.106 lakhs but the United Kingdom percentage fell from 62 to 60. Since

the suspension of the gold standard in September, 1931, the exchange advantage vis-à-vis the U.S.A. resulted in an improvement in the United Kingdom position as regards numbers from 30% in 1931-32 to 64% in 1932-33. The fall in the exchange value of the dollar during 1933, however, resulted in the re-entry in large numbers of U.S.A. and Canadian cars into the market and the United Kingdom percentage correspondingly fell from 64 to 55. The preferential margin in the case of motor vehicles is only 7½% and this is not sufficient to equalise prices of United Kingdom and U.S.A. cars. United Kingdom manufacturers are, however, improving their sales and service organisations and will probably be able to retain much of the ground they have gained during the years 1931-32 and 1932-33.

Motor Omnibuses, Trucks, etc.—The trade in commercial motor vehicles followed generally the same trend as that of motor cars. Imports rose in numbers from 2,676 to 5,496; whilst United Kingdom shipments rose in number from 517 to 528 they fell, in percentage from 19 to 10. As regards values, total imports rose from Rs.41 to Rs.66 lakhs, the United Kingdom share from Rs.10 to Rs.12⅔ lakhs but the percentage receded from 24 to 19. The preference of 7½% is of some advantage against the few Continental suppliers but is not sufficient to check the imports of U.S.A. and Canadian trucks backed by an efficient and widespread organisation. Of greater value is the manufacture in a branch works in the United Kingdom of at least one prominent vehicle of the U.S.A. type.

Cycles (other than motor cycles) and parts thereof and accessories.—This trade offers an outstanding example of the value of the preference. So far as complete cycles are concerned, the total trade rose from Rs.20 to Rs.25 lakhs, United Kingdom shipments from Rs.18½ to Rs.23 lakhs and the percentage from 91 to 92. Imports of parts of cycles and accessories rose from Rs.60 to Rs.63½ lakhs, the United Kingdom contribution from Rs.33½ to Rs.39½ lakhs and the percentage from 56 to 62. Imports of astoundingly cheap Japanese machines, and particularly parts, brought the quantitative United Kingdom percentage of complete machines imported entire or in sections from 99 in the triennium ended 1929-30 to 77 in 1932-33. It is most satisfactory to note that the figure has now improved to 81. Although the 10% preference is not sufficient to bridge the gulf between the two scales of prices, the United Kingdom machines are so popular and renowned for their durability that consumers are prepared to pay a higher price for quality provided that the difference is not beyond their reach. The preference enables the United Kingdom machine to be cheaper when life and quality are considered.

Carriages and Carts not mechanically propelled (excluding railway carriages, trucks, etc.).—This is a small trade which rose quantitatively from 1,796 to 1,926 but fell in value from Rs.2½

to Rs.1½ lakhs. The United Kingdom share rose from 292 to 417 in number but fell in value from Rs.85,000 to Rs.47,000. The competition is mainly from Germany and Japan.

Parts of carriages and carts, excluding Rubber Tyres.—The total imports rose from Rs.2 to Rs.3 lakhs, the United Kingdom shipments from Rs.1¼ to just over Rs.1¾ lakhs but the British percentage fell from 65 to 61.

SUMMARY OF THE BENEFITS SECURED BY UNITED KINGDOM TRADE.

In Appendix B to this Chapter, page 118, will be found a table, similar to that already referred to in the section dealing with India's exports, which may give some indication of the advantage of the preferences to the United Kingdom on landed cost in India. Here, also, the result is reached by multiplying the declared value of the imports into India from the United Kingdom in 1933-34 by the margin of preference. Obviously, any such method can only give the crudest idea of the value of the preference. It will be noted that the total advantage to the United Kingdom is shown as being Rs.551 lakhs or £4,132,500. Of this total, no less than Rs. 337 lakhs (£2,527,500) is derived from differential duties, which were imposed prior to the Ottawa Agreement and in order to protect the Indian consumer from the effects of the policy of discriminating protection. The total advantage to the United Kingdom which may be directly attributed to the preferences conceded by the Ottawa Trade Agreement amounts to Rs.214½ lakhs or £1,608,750. This total compares with the figure of Rs.802 lakhs or £6,015,000 which, according to the same method of computation, is the total advantage accruing to India from the preferences granted by the United Kingdom. A study of Appendix B shows that the principal advantages, according to this rather crude method of calculation, were secured by :—

	Rs. (lakhs).
Cotton Piecegoods (differential duties)	308
Iron and Steel (differential duties)	29
Instruments, Apparatus and Appliances	21
Chemicals	15
Rubber Manufactures (mainly tyres)	11½
Hardware	9
Motor Cars	8
Ale and Beer	6½
Cycles and parts and accessories	6
Woollen manufactures	6
Provisions and oilman's stores	6
Wrought brass, bronze and similar alloys	5
Paints	4
Wrought copper	4
Stationery, etc.	3½
Lubricating oils	3
Parts of motor vehicles and accessories	2½
Toilet Requisites	2
Wrought Aluminium	2
Miscellaneous Paper manufactures	2
Drugs and Medicines	1½

The Director-General summarises the relative position of the two countries as regards advantages obtained by stating that *although after the Ottawa Trade Agreement the United Kingdom has improved her position in the Indian market, there is still a good deal of leeway for her to make up. On the other hand, she proved to be an increasingly important market for Indian goods.*

III.—EFFECT OF THE PREFERENTIAL DUTIES.

(a) **On Prices to the Consumer.**—The Collectors of Customs have collected, through the agency of their appraising staff, price quotations ruling in December, 1932, and December, 1933, in the wholesale markets at the ports. These prices were collected for competing preferential and non-preferential classes of articles under most of the headings. They were then consolidated and examined by the Department of Commercial Intelligence and Statistics and are included in the Director-General's report on the working of the Ottawa Agreement. As much of this information is not available in any other publication, exporters to India are recommended to purchase the report, which can be obtained from the Office of the High Commissioner for India, India House, Aldwych, W.C. In an interesting introductory note, the Director-General outlines the limitations under which the examination into price changes has been carried out. The principal of these are :—

(1) The quality of the article for which the price is taken in the two periods may not be the same. The articles on which preference has been granted are manufactured articles in which stardardisation and grading cannot easily be carried out. In these circumstances, the quality of the article, though called by the same name, has not necessarily been identical.

(2) The difficulty of isolating the effect of one factor—viz.: Preference —from the numerous other factors affecting the course of prices, e.g., the results of the depression. The articles concerned do not enter largely into any wholesale index number. Most of them are specialised manufactured articles for which the demand is particular and selective. It has been impossible to separate the effects due to changes in the rates of duty on these articles from the effects due to general trade conditions.

(3) Tariff changes, quotas, prohibitions, etc., and quick exchange fluctuations upset price levels far more than a comparatively small factor such as the introduction of a 10 per cent. preference in the rate of duty. Since the United Kingdom went off the gold standard in 1931 and India followed suit, the normal exchange values of the rupee in terms of currencies of the gold countries have all been changed. Moreover, the exchanges of many other countries have undergone serious fluctuations, e.g., the depreciation of the Yen and the fluctuations of the Dollar.

(4) The effects of " rings ", " cartels " and price agreements between the manufacturers either of one country or of several countries. In two or three instances it has been found that prices in India have been fixed by international " rings " in such a way as to neutralise to some extent the effect on price which might have been expected from preference.

Conclusions reached.—The Director-General summarises the results of the investigation as follows :—

" The limitations under which the examination has had to be carried out have been briefly stated above. These limitations make any hasty conclusion a hazardous task; but in spite of this uncertainty certain ' prima facie ' conclusions seem to follow from the available data. The pricipal conclusion which seems to emerge in the light of the data is that prices of both preferential and non-preferential goods have gone down in most cases. The exceptions to the general tendency are due to some modifying factor, such the presence of ' rings ' and ' agreements ' or the presence of a specialised demand or of a monopoly supply. For example, in the case of articles in which there is a ' ring ' of suppliers or an understanding between the suppliers not to compete unduly, the price of the article may remain at the same level, in spite of the general falling in prices. The absence of competition makes this possible. Similarly, in the case of articles for which the demand is specialised the producer can pass on the additional duty to the consumer without sustaining any loss himself, as in such cases the demand is not likely to be affected by a small rise in price. Thirdly, where the supplier has a monopoly of a particular article then he can afford to increase his prices without inviting competition. Except in such cases, i.e., except in case of defective competition, the prices of preferential and non-preferential articles have tended to fall. This was exactly what Government anticipated at the time of the debate on the Ottawa Agreement.

In the case of the United Kingdom and the Colonies the preference was generally granted by reducing to some extent the duty on imports coming from those sources. As a result of this advantage the United Kingdom and the Colonies could afford to reduce their prices to some extent in order to capture the market from their competitors. That this has been so can be seen from the fact that prices in most cases of imports from the United Kingdom have shown considerable decreases. No doubt a part of this may have been due to a general falling tendency in prices of similar articles, but it cannot be denied that apart from this the decrease was certainly due to the reduction in the duty in favour of the United Kingdom and the Colonies. On the other hand, the duty on many of the other foreign countries was increased to some extent. One might expect that, other things being equal, this should lead to a rise in prices, but the effects have been otherwise. The reasons for this lie chiefly in the present state of the world markets. With economic conditions such as they are at present most of the markets are weak, as demand is generally feeble for most articles, and supply outstrips the demand. Further, tariffs and quotas are having a strangling effect on international trade to such a degree that whatever trade remains is subject to severe competition. Every country therefore is trying its hardest, even sometimes at considerable sacrifice, to retain the existing markets. Non-preferential producers and importers can compete with preferential suppliers, firstly by reducing their margin of profit. If there is sufficient margin of profit it has generally been reduced in order to overcome the additional duty. Secondly, the foreign manufacturer tries to maintain his position by reducing his profit on articles in which he was competing with the preferential items and recouping himself by raising prices where the competition from preferential articles was not so keen. Importers themselves in India have followed this practice in some cases. For example, in the case of fruit juices, the importers reduced the price of non-preferential fruit juices in order to maintain competition with fruit juices coming from preferential sources and recouped themselves by increasing the price in the case of certain fruit juices where there was no competition. A

similar procedure has been followed in the case of ale and beer. These examples show clearly how the importers have tried to adjust themselves to the changes in duty. But apart from this there is another factor which must be taken into consideration in examining the ability of the foreign producer to reduce his prices in competition with those of the United Kingdom articles. In the present economic world with its high tariffs the manufacturer is assured of his home market. From that market he hopes to make considerable profit as the competition from foreign sources is negligible. After meeting the demand of his home market whatever remains is more or less in the nature of surplus to him, and this surplus he can afford to sell even at a considerable sacrifice and in some cases actually at prices in the foreign market below those in the home market. This has probably been one of the principal factors which have enabled the foreign manufacturers to compete with the United Kingdom. Lastly, the price reduction may have been affected by imperceptibly reducing the quality of the supplies. The general consumer is not very quick to notice changes in quality and as long as the price is not affected he goes on buying the same particular make of article. Some of the Collectors of Customs have definitely stated that some prices have been reduced at the cost of quality. These various factors have helped the foreign producer to reduce his prices in spite of the increase in duty against him. *But by whatever method the end was achieved the fact remains that the prices of both preferential and non-preferential items have fallen in most cases and the consumer therefore has profited to some extent as a result of the scheme of preferences.*"

(b) On Customs Revenue and Trend of Trade.—A Special Committee was appointed by the Indian Legislative Assembly to examine and report on the working of the scheme of mutual preferences between India and the United Kingdom arising from the Ottawa Trade Agreement; this Committee sat towards the close of the August 1934 Session of the Legislature and examined with care the departmental report which is analysed at length in this chapter. This evidence was supplemented by further explanatory statements supplied by the Government of India. The Committee's report was laid on the table of the House on the 31st August, the last day of the Session, and consequently no debate on its findings was possible. A corresponding Committee of the Council of State presented its report after the Session had closed. This report will therefore remain secret until it is laid on the table of the Council of State in February next.

In an interesting appendix to the Assembly Committee Report, compiled by the Central Board of Revenue, an appreciation is given of the effects of the Ottawa preferences on Indian customs revenue. This shows that the total revenue from import duties in the year 1933-34 was Rs.626 lakhs less than the total import revenue of the previous year 1932-33. This result was contributed to by the three groups of tariff headings as follows :—

(1) Tariff headings entirely affected by the Ottawa Trade Agreement: *net gain* Rs.5·10 lakhs or 1¼%.

(2) Tariff headings partially affected by the Agreement: *net loss* Rs.68·24 lakhs or −5%.

(3) Tariff headings entirely unaffected: *net loss* Rs.563·70 lakhs or −23%.

It is clear that the Ottawa Agreement had virtually no effect on the reduction in Customs revenue, the greater part of which occurred under the protected heads of sugar, cotton piecegoods and iron and steel, these three items alone accounting for Rs.430 lakhs of the decrease.

The general conclusions of the Assembly Committee, subject to minutes of dissent on the part of three members, and also subject to the practical difficulties in formulating any precise estimate of the effect of the preferences and of resulting price movements in such an abnormal state of world trade, were :—

(*a*) The export trade in articles which enjoy preferences on importation into the United Kingdom forms, at the same time, the most important and the most stable part of our total export trade.

(*b*) The United Kingdom has proved a steadier market for both preferential and non-preferential commodities than have foreign countries in general.

(*c*) Since the initiation of the preferential scheme the general downward trend of the United Kingdom's import into India has been checked and an upward trend is now shown.

(*d*) The general tendency of the mutual trade between India and the United Kingdom has been, of recent years, towards an equality of exchanges which has practically been established in the first year of the preferences.

(*e*) The majority of the preferences enjoyed by India in respect of her more important exports have been of definite value to her export trade.

(*f*) The preferences given by India have similarly been of definite assistance to the United Kingdom and, where they have not led to an increased trade, they have at least tended to counteract factors operating in the opposite direction.

(*g*) The mutual preferences between India and the non-self-governing Colonies have had little effect on trade exchanges.

(*h*) The preferences given by India have not adversely affected the Indian consumer or the Indian revenues.

(*i*) The import preferences have not proved detrimental to any Indian industry.

(*j*) On the whole the Trade Agreement has been for the mutual benefit of the contracting parties.

IV.—ADVANTAGES OF THE OTTAWA TRADE AGREEMENT TO THE UNITED KINGDOM EXPORTER.

A close study of the detailed examination of the several items which has been made in this chapter clearly shows that, in almost every instance, the introduction of preferences has been followed by a relative improvement in the competitive position of the United Kingdom, though the improvement is no doubt partly due to other

causes. United Kingdom exporters have displaced their Continental and U.S.A. competitors in very many lines. I confidently expect that, as the depression lifts and the volume of the import trade increases, this movement will gather pace and the value of the additional trade will steadily mount. The results last year would have been much more striking had it not been for the onset of Japanese competition, which had a dual effect. In the first place, Japanese exporters secured a certain amount of trade formerly enjoyed by the United Kingdom and, secondly, they succeeded in capturing a much greater volume of trade from Continental exporters, much of which would otherwise have been diverted to suppliers in the United Kingdom. The disparity between the respective price levels of the United Kingdom and Japan is too great to be bridged by a 10% preference. It is only in those cases where substantial differential duties have been imposed in order to protect indigenous industries that Japanese and United Kingdom prices are even approximately equated. The additional alternative minimum specific duties imposed on a limited range of foreign imports under the provisions of the Indian Tariff (Amendment) Act, 1934, have checked, to some extent, the flood of Japanese imports in those items, but it is to be expected that Japanese competition will increase in intensity and will cover a constantly widening range of goods.

There is no doubt that the Ottawa Trade Agreement has inaugurated a new era of closer and more profitable trading relationships between the United Kingdom and India. But, as I have repeatedly stated, *while the initial steps have been taken by representatives of the two Governments, the success of the movement must depend upon the extent to which the fiscal advantages are followed up by energetic action on the part of the United Kingdom and Indian manufacturers and merchants.* The present time, when trade is at its nadir and it would seem that we are on the eve of a gradual recovery, is a peculiarly favourable one for United Kingdom exporters to take stock of their position in the Indian market and make their plans for improved local selling and distributing organisations, taking into account the rapidly changing conditions in the country which demand more modern and improved methods than have often been employed in the past. Adequate representation on the spot is essential. The days when the United Kingdom manufacturer could rely entirely upon the receipt of orders in the United Kingdom without further effort on his part have gone for ever. In the numerous cases where he operates his own branch distributing organisation in India, he will, doubtless, strengthen and extend it to cover a wider field. In those instances where he is represented in India by agents, he should confer with them as to the further steps which should be taken to ensure that his goods are adequately stocked, advertised, canvassed and sold. He must realise that the average merchant

in India cannot afford adequately to distribute goods throughout his area on a bare agency commission unless he is supported by travelling and advertising allowances and, preferably, in the case of goods of a technical nature, by the addition to his staff of a specialist from the works. Unless the manufacturer is prepared to take active interest in the further distribution of the goods after they have been shipped and constantly to keep in sympathetic touch with the activities of his agent, he cannot rely upon the distribution of his products in the most efficient manner. Similarly, in those cases where a cold-weather traveller is employed, the manufacturer should endeavour to ensure that the ground is adequately covered and that he is giving his representative adequate support as regards samples, descriptive literature, advertising material and allowances. In very few cases is it possible to conduct a satisfactory business by correspondence alone without some form of local representation. India is a highly specialised and intricate market with many pitfalls for the unwary. It consequently requires more sales planning and specialised local representation than most markets. It is suggested, therefore, that exporters who may be entering the market without previous experience should consult the Department of Overseas Trade who will be glad to advise with regard to conditions obtaining in India and suitable forms of representation.

Just as the past 10 years have witnessed almost a revolution in political thought and institutions in India, so have economic conditions and methods of transacting business shown a remarkable change in keeping with the world's progress. The market now demands as efficient and widespread technical, publicity, sales and service systems as any Western country. When one considers that the difficulties peculiar to the country, e.g., its enormous area and comparative slowness of transport, the risks attending the grant of credit, the paucity of statistics and the difficulty of securing accurate information relating to internal trade, etc., still remain, it will be realised that considerable forethought and expert advice is required in devising a marketing scheme which will meet present day Indian conditions. The Ottawa Agreement has prepared the way for a great advance in United Kingdom-Indian trading relations. It now rests with individual United Kingdom and Indian exporters to take the fullest advantage of the opportunities offered for the mutual benefit of the two countries.

APPENDIX A TO CHAPTER III.

EXPORTS FROM INDIA TO THE UNITED KINGDOM.

(a) PREFERENTIAL DUTIES—SCHEDULED.

(NOTE 1.—In calculating the advantage on landed cost in the case of exports from India to the United Kingdom the declared values (f.o.b.) of the various exports from India to the United Kingdom have been taken. As the preference is however granted in the United Kingdom on the c.i.f. values in the United Kingdom, the advantage from the preference is somewhat underestimated by the method followed. This method has been adopted because the United Kingdom detailed accounts are for the calendar year and not for the fiscal. The defect, however, is not important because specific preferences have been granted on tea, tobacco and rice, which are the three most important items and between them account for an advantage of Rs. 597 lakhs out of a total of Rs. 802 lakhs).

NOTE 2.—The advantage is calculated on the export figures as recorded in the Indian Accounts, with the corrections so far received. There is, however, a certain amount regarding which final information has not yet been received and the figures are therefore provisional.

Articles. (1)		Exports during 1931–32. (2)	Exports during 1932–33. (3)	Exports during 1933–34. (4)	Rate of Preference. (5)	Advantage on landed cost in the United Kingdom. (6)	Remarks. (7)
						Rs. (000)	
SCHEDULE A.							
Wheat in grain	Tons (000)	16,8	—	—	2s. per qr.	—	
	Rs. (000)	10,08	—	—	—	—	
Rice, cleaned	Tons (000)	29·6	41·5	89·7	1d. per lb.	1,11,63	
	Rs. (000)	27,43	33,59	51,98			
Castor oil	Gal. (000)	685	767	753	15%	1,53	
	Rs. (000)	10,94	12,17	10,17			
Linseed oil	Gal. (000)	—	—	—	£3 10s. per ton	—	
	Rs. (000)	—	—	—	—		
Coconut oil	Gal. (000)	11	12	12	15%	3	
	Rs. (000)	18	17	17			
Groundnut oil	Gal. (000)	280	664	507	15%	94	
	Rs. (000)	3,73	10,44	6,25			

Mustard or rape oil	Gal. (000)	4	34	16	15%	3	
	Rs. (000)	12	53	23			
Sesamum oil	Gal. (000)	—	—	—	15%	—	
	Rs. (000)	—	—	—	—	—	
Magnesium chloride	Cwt. (000)	—	—	12·9	1s. per cwt.	22	
	Rs. (000)	—	—	39	plus 33⅓% ad val.		
Linseed	Tons (000)	14 1	14·3	175·2	10%	19,99	
	Rs. (000)	16,47	16,55	1,99,92			
Total	Rs. (000)	68,95	73,45	2,69,11	—	1,34,37	
SCHEDULE B.							
Coffee	Cwt. (000)	44·1	51·9	53·0	9s. 4d. per cwt.	3,30	
	Rs. (000)	27,95	33,91	31,40			
SCHEDULE C.							
Tea	Lbs. (000)	291,199	330,661	276,459	2d. per lb.	3,07,18	
	Rs. (000)	16,92,84	14,78,45	17,58,16			
Coir yarn...	Cwt. (000)	—	—	128	10%	1,41	
	Rs. (000)	—	—	14,09			
Coir mats and mattings	Rs. (000)	—	—	44,19	20%	8,84	
Cotton yarns	Lbs. (000)	151	198	440	10%	13	
	Rs. (000)	46	65	135			
Cotton manufactures (excluding yarn) ...	Rs. (000)	16,76	29,47	13,69	20% *	2,74	*General rate.
Leather, undressed-hides-tanned, other than sole leather.	Rs. (000)	2,08,24	1,59,29	2,38,34	10%	23,83	
Leather, undressed-skins tanned	Rs. (000)	2,76,79	2,76,99	2,91,78	10%	29,18	
Jute manufactures	Rs. (000)	1,86,40	1,74,61	1,60,22	20% *	32,04	
Oilseed cake and meal	Tons (000)	1·04	1·06	1·50	10%	8,21	
	Rs. (000)	72,51	72,44	82,15			
Paraffin wax	Tons (000)	17	8	13	10%	5,47	
	Rs. (000)	76,11	36,68	54,70			
Spices	Cwt. (000)	19	31	18	10%	74	
	Rs. (000)	7,46	10,10	7,43			
Teak and other hard woods whether hewn or sawn, in so far as now subject to duty.	Rs. (000)	34,26	28,37	39,88	10%	3,99	

Articles. (1)		Exports during 1931–32. (2)	Exports during 1932–33. (3)	Exports during 1933–34. (4)	Rate of Preference. (5)	Advantage on landed cost in the United Kingdom. (6)	Remarks. (7)
						Rs. (000)	
Woollen carpets and rugs	Lbs. (000)	3,537	4,283	6,710	20%*	11,30	*A general 20% ad val. rate has been adopted as the quantity is not recorded in sq. yds. in Indian accounts.
	Rs. (000)	40,62	44,62	56,49			
Bran and pollard }	Tons (000)	181	178	211	10%	3,70	
Rice meal and dust }	Rs. (000)	48,15	53,98	37,00			
Tobacco, unmanufactured	Lbs. (000)	10,626	9,046	13,299	2s. per lb. (average).	1,77,32	
	Rs. (000)	39,21	36,35	46,94			
Tobacco, manufactured	Lbs. (000)	24	30	38	4s. per lb. (average).	1,01	
	Rs. (000)	32	36	48			
Castor seed	Tons (000)	24	25	19	10%	2,16	
	Rs. (000)	34,77	35,64	21,61			
Magnesite	Cwt. (000)	—	—	48	10%	28	
	Rs. (000)	—	—	284			
Sandalwood oil	Lbs. (000)	41	27	47	10%	62	
	Rs. (000)	7,01	3,53	622			

Granite setts and kerbs	Tons (000)	—	—	10	15%	46
	Rs. (000)	—	—	3,05		
Groundnuts	Tons (000)	83	36	30	10%	3,52
	Rs. (000)	1,21,33	62,70	35,22		
Lead	Cwt. (000)	791	979	1,112	10%	12,98
	Rs. (000)	1,05,19	1,18,99	1,29,78		
Total	Rs. (000)	29,68,43	26,23,22	30,45,61	—	6,37,11
Total of Schedule A		68,95	73,45	2,69,11	—	1,34,37
„ Schedule B		27,95	33,91	31,40	—	3,30
„ Schedule C		29,68,43	26,23,22	30,45,61	—	6,37,11
Total of scheduled articles		30,65,33	27,30,58	33,46,12	—	7,74,78

(*b*) PREFERENTIAL DUTIES—UNSCHEDULED.

Unscheduled Articles.

Barley	Tons (000)	21·7	12·6	—	10%	—
	Rs. (000)	13,02	8,01	1		
Pulses	Tons (000)	16·9	33·0	21·3	10%	1,70
	Rs. (000)	12,05	25,88	17,04		
Miscellaneous foodgrains (i.e., grains excluding wheat, rice, maize, barley and pulses).	Tons (000)	1	1	—	10%	1
	Rs. (000)	78	47	14		
Manures	Tons (000)	6·5	9·8	15·2	10%	83
	Rs. (000)	3,44	5,82	8,26		
Goat skins, raw	No. (000)	3,542	4,683	6,821	10%	7,71
	Rs. (000)	43,74	49,66	77,09		
Others	Rs. (000)	1,58,70	1,52,55	1,67,74	10%	16,78
Total of unscheduled articles	Rs. (000)	2,31,73	2,42,39	2,70,28	—	27,03
GRAND TOTAL	Rs. (000)	32,97,06	29,72,97	36,16,40	—	8,01,81

APPENDIX B TO CHAPTER III.

IMPORTS INTO INDIA FROM THE UNITED KINGDOM.

(a) PREFERENTIAL DUTIES—SCHEDULED.

Serial Nos. in Schedule F to the Agreement.	Article.		Imports during 1931-32.	Imports during 1932-33.	Imports during 1933-34.	Margin of preference.	Advantage on landed cost in India.
							Rs. (000).
1-3 ...	Apparel	Rs. (000)	22,13	21,48	20,06	10%	2,01
	Arms, ammunition—						
4-5 ...	Cartridge cases, filled and empty	No. (000)	26,046	17,885	14,222		
		Rs. (000)	17,25	13,47	9,85	10%	98
6	Firearms	No. (000)	26	14	8		
		Rs. (000)	18,95	9,44	7,30	10%	73
7	Asbestos manufactures	Rs. (000)	11,16	9,46	11,22	10%	1,12
8	Boots and shoes of leather	Prs. (000)	109	107	101		
		Rs. (000)	5,93	5,33	5,26	10%	53
9-11 ...	Brushes	Doz. (000)	51	77	95		
		Rs. (000)	3,04	3,92	4,72	10%	47
	Building materials—						
13 ...	Cement, Portland	Tons (000)	45	33	31	Rs. 4-8-0 per ton.	1,39
		Rs. (000)	24,11	15,87	12,96		
12 & 14-16	Others	Rs. (000)	8,57	7,75	7,95	10%	79
17 ...	Buttons, metal	Rs. (000)	64	60	1,05	10%	10
18-30 ...	Chemicals and chemical preparations (excluding chemical manures and medicines).	Rs. (000)	1,41,00*	1,40,00*	1,49,00*	10%	14,90
31-32 ...	Cocoa and chocolate and confectionery... ...		Included in Provisions and Oilmans' Stores (vide items Nos. 127-130).				
33 ...	Cordage and rope of vegetable fibre	Cwt. (000)	5·9	4·5	6·5		
		Rs. (000)	2,88	2,00	2,49	10%	25
34 ...	Cork manufactures	Rs. (000)	81	31	58	10%	6

35	...	Cutlery (other than pruning knives)	Rs. (000)	4,80	5,30	6,41	10%	64
36–37	...	Drugs and medicines	Rs. (000)	22,08	15,12	16,35	10%	1,63
38–40	...	Earthenware and porcelain	Rs. (000)	14,30	12,26	12,24	10%	1,22
41–43	...	Furniture and cabinetware	Rs. (000)	8,15	6,20	8,65	10%	86
44	...	Glue...	Cwt. (000)	5·8	4·3	4·4		
			Rs. (000)	1,26	1,01	96	10%	10
45–54	...	Hardware (excluding cutlery and electro-plated ware).	Rs. (000)	91,00	85,00	92,00	10%	9,20
55–75	...	Instruments, apparatus and appliances and parts thereof.	Rs. (000)	1,83,00	1,94,00	2,06,00	10% (mainly).	20,60
76–79	...	Leather	Rs. (000)	12,89	13,15	12,50	10%	1,25
		Liquors—						
80–81	...	Ale and beer	Gal. (000)	2,347	2,322	2,072	5as. per Imp.	6,47
			Rs. (000)	44,16	45,50	41,47	Gal. approx.	
82	...	Spirit present in drugs, etc.	Gal. (000)	46	39	49	Rs. 3–8–0 per	1,71
			Rs. (000)	14,06	13,08	15,43	Gal. (avg.).	
83	...	Spirit, perfumed	Gal. (000)	2·5	2·6	3	Rs. 7–8–0 per	22
			Rs. (000)	2,26	2,53	3,36	Gal.	
84	...	Machinery and millwork	Not available.					
		Metals and ores—						
85–7	...	Aluminium, wrought	Cwt. (000)	10	10	21		
			Rs. (000)	7,50	9,41	17,43	10%	1,74
88–93	...	Brass, bronze and similar alloys, wrought ...	Cwt. (000)	82	1,70	1,71		
			Rs. (000)	32,95	54,82	52,99	10%	5,30
94–98	...	Copper, wrought	Cwt. (000)	64	72	113		
			Rs. (000)	27,46	27,99	38,04	10%	3,80
99	...	German silver	Cwt. (000)	2·2	3·3	3·9		
			Rs. (000)	1,55	2,42	2,60	10%	26
100	...	Iron and steel, all sorts, etc.	Not available.					
101–2	...	Lead, wrought	Cwt. (000)	14	15	20		
&			Rs. (000)	2,35	2,61	4,13	10%	41
103	...	Zinc, wrought	Cwt. (000)	4·2	3·7	5		
			Rs. (000)	90	90	1,26	10%	13

* Represent imports of all classes, the complete share of the prefefential items not being available.

Serial Nos. in Schedule F to the Agreement.	Article.		Imports during 1931–32.	Imports during 1932–33.	Imports during 1933–34.	Margin of preference.	Advantage on landed cost in India.
							Rs. (000).
	Oils—						
104 ...	Fish oil	Gal. (000)	103	163	99		
		Rs. (000)	134	179	101	10%	10
105 ...	Essential—synthetic	Gal. (000)	0·07	1·5	1·5		
		Rs. (000)	2	13	36	10%	4
106 ...	Natural essential oils—" Others "	Gal. (000)	3·5	4·2	6·4		
		Rs. (000)	126	98	156	10%	16
107 ...	Lubricating (mineral) other than batching ...	Gal. (000)	1,515	1,639	2,349	2as. per Imp. Gal.	294
		Rs. (000)	26,71	20,90	25,55		
108 ...	Mineral paints, solutions, compositions, etc....	Gal. (000)	5	11	30		
		Rs. (000)	46	104	227	10%	23
109 ...	Vegetable non-essential oils " Others " ...	Gal. (000)	36	16	26		
		Rs. (000)	43	23	36	10%	4
110 ...	Oil-cloth and floor-cloth	Sq.yd.(000)	237	414	434		
		Rs. (000)	229	364	365	10%	36
111 ...	Packing—engine and boiler—of all kinds (excluding asbestos).	Rs. (000)	218	225	265	10%	26
	Paints and painters' materials—						
112–17 ...	Paints and colours	Cwt. (000)	133	131	149		
		Rs. (000)	34,40	35,88	39,23	10%	392
118 ...	Painters' materials, other than turpentine, varnish, etc.	Rs. (000)	382	389	486	10%	49
	Paper and pasteboard—						
119 ...	Packing paper	Cwt. (000)	20	19	14		
		Rs. (000)	448	355	281	10%	28
123–24 ...	Other sorts of paper and paper manufactures	Cwt. (000)	19	19	33		
		Rs. (000)	11,55	11,60	18,61	10%	186

125–126 ...	Pasteboard, millboard and cardboards (other than strawboard) and manufactures thereof	Cwt. (000)	16	19	31		
		Rs. (000)	367	446	665	10%	66
127–130 ...	Provisions and oilman's stores including confectionery and cocoa and chocolate (Nos. 31 and 32).	Cwt. (000)	99	111	110		
		Rs. (000)	63,34	57,82	58,33	10%	583
131–137 ...	Rubber manufactures	Rs. (000)	69,34	80,16	1,16,23	10%	11,62
138 ...	Smokers' requisites	Rs. (000)	73	58	125	10%	12
139 ...	Soap, toilet...	Cwt. (000)	24	35	35		
		Rs. (000)	21,37	24,67	23,78	10%	238
140–1 ...	Stationery, pencils, etc.	Rs. (000)	35,30	32,44	35,17	10%	3,52
142–3 ...	Haberdashery and millinery	Rs. (000)	13	14	12	10%	1
	Wool—						
144–5 ...	Worsted yarn for weaving and knitting wool	lb. (000)	3,51	5,04	7,21		
		Rs. (000)	5,36	8,34	10,20	10%	1,02
146–50 ...	Woollen manufactures	Yds. (000)	1,312	2,799	3,181		
		Rs. (000)	24,78	52,48	57,44	10%	5,74
151 ...	Toilet requisites, etc.	Rs. (000)	18,13	20,73	22,15	10%	2,21
152–4 ...	Toys and requisites for games and sports ...	Rs. (000)	10,65	10,46	11,62	10%	1,16
155 ...	Umbrellas and umbrella fittings	Rs. (000)	5,99	3,68	3,55	10%	35
	Vehicles—						
156 ...	Carriages and carts not mechanically propelled.	No. (000)	199	292	417		
		Rs. (000)	22	85	47	10%	5
157 ...	Parts of carriages and carts	Rs. (000)	1,85	1,21	1,76	10%	18
158 ...	Cycles (other than motor cycles)	No. (000)	47	54	72		
		Rs. (000)	16,98	18,53	23,18	10%	232
159 ...	Parts of cycles and accessories	Rs. (000)	26,35	33,43	39,49	10%	3,95
160 ...	Motor cars	No. (000)	2·2	4·0	5·3		
		Rs. (000)	50,36	80,06	1,06,15	7½%	7,96
161–2 ...	Motor omnibuses, including chassis	No. (000)	435	517	528		
		Rs. (000)	14,43	9,85	12,35	7½%	92
163 ...	Parts of mechanically propelled vehicles and accessories.	Rs. (000)	22,48	22,50	32,66	7½%	2,45
	Total	Rs. (000)	12,07,54	12,69,20	14,29,73		2,14,55

APPENDIX B—*contd.*

(*b*) DIFFERENTIAL DUTIES.

Statutory No.	Article.		Imports during 1931–32.	Imports during 1932–33.	Imports during 1933–34.	Margin of preference.	Advantage on landed cost in India.
							Rs. (000)
	IRON AND STEEL.						
142 ...	Coal Tubs	Tons	208	139	132	Rs. 18/12 per ton	2
		Rs. (000)	86	56	44		
143 ...	Iron, Angle and Channel—						
	(*a*) fabricated	Tons	52	2	25	Rs. 18/12 ,,	—
		Rs. (000)	12	1	5		
	(*b*) not fabricated	Tons	57	92	386	Rs. 13/12 ,,	5
		Rs. (000)	8	12	47		
144 ...	Iron Common Bar...	Tons	30	4	20	Rs. 13/12 ,,	—
		Rs. (000)	5	1	4		
146 ...	Iron or Steel, Pipes and Tubes—						
	(*b*) not galvanised—						
	(i) not under $\frac{1}{8}$ inch thick	Tons	18	2	497	Rs. 18/12 ,,	9
		Rs. (000)	10	1	1,56		
	(ii) under $\frac{1}{8}$ inch thick	Tons	—	—	—	Rs. 32/8 ,,	—
		Rs. (000)	—	—	—		
147 ...	Iron or Steel, plates or sheets—						
	(*a*) fabricated	Tons	132	58	102	Rs. 18/12 ,,	2
		Rs. (000)	35	22	6		
	(*b*) not fabricated	Tons	4,294	4,037	5,665	Rs. 20 ,,	1,13
		Rs. (000)	5,45	4,96	7,02		

148	...	Iron or Steel Sheets—								
		(*a*) fabricated—								
		(ii) All other sorts	Tons	5	32	300	Rs. 32/8	„	10
			Rs. (000)	3	14	48			
		(*b*) not fabricated—								
		(ii) all sorts, not otherwise specified ...	Tons	11,973	14,877	14,332	Rs. 30	„	4,30
			Rs. (000)	17,13	19,06	20,04			
148A	...	(*a*) not fabricated, galvanised—								
		(i) if made from Indian sheet bar ...	Tons	—	—	18,651	Rs. 53	„	9,89
			Rs. (000)	—	—	39,77			
		(ii) if made from sheet bar other than Indian sheet bar.	Tons	—	—	32,233	Rs. 30	„	9,67
			Rs. (000)	—	—	60,51			
150	...	Iron or Steel-Railway Track Material—								
		(A) Rails—								
		(*b*) under 30 lbs. per yard and fish plates...	Tons	124	76	209	Rs. 13/12	„	3
			Rs. (000)	17	10	26			
		(B) Switches—								
		(ii) for rails under 30 lbs. per yard ...	Tons	—	29	—	Rs. 15	„	—
			Rs. (000)	—	13	—			
		(D) Spikes and tie bars	Tons	11	2	2	Rs. 13/12	„	—
			Rs. (000)	2	—	1			
151	...	Steel, angle and tee—								
		(*a*) fabricated	Tons	490	70	145	Rs. 18/12	„	3
			Rs. (000)	1,06	21	29			
		(*b*) not fabricated	Tons	13,554	8,372	8,776	Rs. 13/12	„	1,21
			Rs. (000)	16,63	10,01	10,42			
152	...	Steel, bar and rod	Tons	8,563	7,625	10,060	Rs. 13/12	„	1,38
			Rs. (000)	10,86	9,41	12,12			
153	...	Steel structures	Tons	7,567	3,203	5,740	Rs. 18/12	„	1,08
			Rs. (000)	17,58	7,86	10,84			
		Total of iron and steel	Tons	47,078	38,620	97,275	—		29,00
			Rs (000)	70,49	52,81	1,64,38			

APPENDIX B—*contd.*

(*b*) DIFFERENTIAL DUTIES.

Statutory No.	Article.		Imports during 1931-32.	Imports during 1932-33.	Imports during 1933-34.	Margin of preference.	Advantage on landed cost in India.
							Rs. (000)
	COTTON PIECEGOODS.						
	(*a*) Plain Grey	Yds. (000)	28,908	32,065	27,084	2-3/8 as per lb. for June to Dec., 1933, and 7/8 as. for other months.	5,55
		Rs. (000)	41,35	44,75	36,03		
	(*b*) Others	Yds. (000)	3,48,089	5,54,341	3,87,668	50% ad. val. for June to Dec., 1933, and 25% for other months.	3,02,07
		Rs. (000)	7,41,56	11,45,62	8,22,02		
	Total of cotton piecegoods	Yds. (000)	376,997	586,406	414,752	—	—
		Rs. (000)	7,82,91	11,90,37	8,58,05		3,07,62
	Total of iron and steel and cotton goods ...	Rs. (000)	8,53,40	12,43,18	10,22,43	—	3,36,62
	GRAND TOTAL	Rs. (000)	20,60,94	25,12,38	24,52,16	—	5,51,17

CHAPTER IV

AN ACCOUNT OF THE FURTHER DEVELOPMENT OF PURCHASES OF GOVERNMENT STORES IN INDIA BY THE INDIAN STORES DEPARTMENT, THE RAILWAY ADMINISTRATIONS AND OTHER DEPARTMENTS OF THE GOVERNMENT OF INDIA.

The Indian Stores Department in 1933-34.—I am indebted to Sir James Pitkeathly, Kt., C.M.G., C.I.E., etc., etc., Chief Controller of Stores, for the following information, which has been abstracted from his administration report for the year. This and preceding reports may be seen at the Department of Overseas Trade and should be read by all firms interested in the supply of stores to the Government of India. The Chief Controller reviews the progress made during the year in the following terms :—

" The Reports of the Indian Stores Department for the years 1931-32 and 1932-33 recorded a contraction in every branch of the activities of the Department due to the vigorous curtailment of the grants of the spending Departments. Measured by the value of stores purchased and inspected the turnover of those years was further reduced by the unprecedented low level in commodity prices. It is gratifying to note that during the year 1933-34 there was a considerable improvement in every direction. The figures of the previous year have been surpassed in every branch of the Department and the net working results, financially, show an improvement even on the working of the year 1931-32. The number of orders placed during the year increased from 44,045 to 49,767, and their value from Rs.3,30,90,903 to 3,59,94,135. The value of stores inspected during the year increased from Rs.3,54,07,609 to Rs.4,46,65,505; and the tonnage of stores charged on weight from 156,203 to 254,833. The number of tests and analyses carried out at the laboratories of the Government Test House, Alipore, and the Metallurgical Inspectorate, Jamshedpur, amounted to 15,499 as compared with 11,512 during the preceding year.

The operation of the Rupee Tender System.—The rules regulating the present policy of the Government of India in respect of purchase of stores, popularly known as the Rupee Tender Rules, were formally introduced with effect from the 1st January, 1931. The Governments of Madras, Bombay, Assam and the Central Provinces adopted similar rules during the same financial year (1930-31). The Government of Bihar and Orissa followed in 1931-32 and the Government of Bengal in 1932-33. The Government of Burma introduced rules based on the Rupee Tender system during the year to which the report relates. The Government of the North West Frontier Province adopted the Central Government Rules on its constitution in 1932-33. It now remains for the Governments of the Punjab and the United Provinces to follow suit.

The rules published by the various local Governments are followed in effecting purchases on their behalf. The transactions on behalf of Company Railways, Indian States and quasi-public bodies are regulated by the rules issued by the Central Government.

The Rupee Tender Rules express a definite preference for stores which are produced in India in the form of raw materials or are manufactured in India from raw materials produced in India, and also for articles wholly or partially manufactured in India from imported materials. They also extend a preference (but not in price) to articles of foreign manufacture stocked in India over those which have to be specially imported. As the period of operation of the new rules has coincided with a period of acute financial depression and low level of prices, no rapid advance is visible in the volume of business which has passed through the Indian Stores Department. The effect of the new rules is, however, strikingly visible in the figures of turnover of the London Stores Department. Although the volume of business transacted in the Indian Stores Department during 1932-33 was the lowest recorded since 1926-27, the value of purchases effected in London in 1932-33 was well below the value of purchases made by the Stores Department in India—the former representing 26·8 and the latter 73·2 of the total purchases made by the two Departments.

Indents on the Director General, India Store Department, London, and direct on firms abroad.—Copies of 1,180 indents of the estimated value of Rs.60,01,840 placed by the various provincial Governments and Central Departments on the Director General, India Store Department, London, or direct on firms abroad, were received for examination during the year as against 835 indents of the estimated value of Rs.74,36,880 during the year 1932-33. The increase in the number of indents placed abroad was mainly due to demands for stores and equipment for the Royal Air Force. Under the present arrangement most of the requirements for this Branch of the Defence services have to be obtained to standards prescribed by the Air Ministry and are required to satisfy the tests laid down by the Aeronautical Inspection Department and have to be inspected by that Department before shipment.

Demands of the estimated value of Rs.80,333 were challenged during the year as against Rs.63,573 during the previous year. The increase in the value of demands challenged was due to the scrutiny, for the first time, of indents placed by officers of the Government of Bengal as a consequence of the adoption of the Rupee Tender Rules by that Government from the 1st March, 1933.

Classified list of stores obtained from abroad.—The Department has hitherto issued bi-monthly lists of stores obtained from abroad for the information of the commercial and industrial community. Since the introduction of the Rupee Tender Rules, comparatively few demands are now placed abroad, and these lists have to a large extent lost their value. After consulting representative commercial bodies in the country it has been decided to discontinue the publication of these bi-monthly lists but in order that parties interested may still be in a position to ascertain what stores are being demanded from abroad it has been decided to publish the information half-yearly in the Indian Trade Journal. This arrangement has been introduced with effect from the 1st January, 1934, and the first half-yearly list will appear in the Indian Trade Journal in August, 1934.

Utilisation of the services of the Indian Stores Department by authorities outside India.—As in past years, the services of the Department were utilised by the Resident Engineer, Royal Airship Base, Karachi, for the purchase and inspection of miscellaneous stores and by the Inspector General of Police, Singapore, Straits Settlements, for Police uniforms and accoutrements. The value of orders placed on behalf of these authorities aggregated Rs.9,950. A supply of Diesel oil of

the value of Rs.1,838 was also made to the Colonial Store Keeper, Ceylon.

Tents amounting to Rs.7,511 manufactured at Cawnpore were inspected on behalf of the Palestine Government and cast iron pipes and specials aggregating 214 tons manufactured at Kulti were inspected on behalf of the Water Engineer, Singapore Municipality."

Activities of the Purchase Branch.—The increase in the value of orders placed during the year 1933-34, compared with 1932-33 amounted to Rs.29,03,232 or 8·8%, which is most satisfactory considering that throughout the year under review the necessity for the strictest economy in expenditure still continued so that fewer indents were received for plant and machinery and stores required for new capital works, and indenting Departments continued to cut down their annual requirements of consumable stores to a minimum. Apart from the value of purchases made, the volume of purchase work continued to increase, the number of indents and items dealt with amounting to 44,133 and 88,347 respectively, as compared with 38,720 and 77,288 during the previous year.

Purchases on behalf of the Military Department.—The total purchases made during the year on behalf of the Army amount to Rs.82,48,014 against Rs.90,69,243 in the previous year, a decrease of 8,21,129 or 9%. The value of textile stores purchased for Army indentors increased by Rs.3,60,997, but the purchases of engineering stores declined in value by Rs.11,82,226. The value of stores purchased for the Military Engineer Services declined by Rs.9,29,531. Purchases for the Quarter-Master General's Branch, including Mechanical Transport equipment and stores, declined by Rs.2,08,323. The purchases made by indentors under the Master General of Ordinance increased by Rs.2,77,876. The purchases made on behalf of the Royal Indian Marine and the Royal Air Force showed small increases.

Purchases on behalf of the Civil Departments of the Central Government.—The value of purchases made on behalf of the Central Government decreased by Rs.10,62,912 or 26% as compared with the previous year. Practically the whole of the decrease was due to the falling away of demands from indentors under the Commerce Department. In 1932-33 demands amounting to Rs.10,19,421 were received from these indentors against demands amounting to Rs.1,34,141 only during the year under review. The decline was mainly due to the approaching completion of the Vizagapatam Harbour project for which large purchases of plant and equipment were made in 1932-33.

Purchases on behalf of Railway Administrations.—As a result of meetings with the Railway Department (Railway Board) which were continued during the year, the following items were added to

the list of requirements of State Railway Administrations, the purchase and inspection of which will in future be undertaken by the Indian Stores Department :—

1. All permanent-way bolts and nuts including fish bolts and nuts;
2. Steel springs, laminated, helical and volute and steel spring material;
3. Buffers and buffer parts;
4. Carriage body metallic fittings;
5. Rubber buffing and drawsprings;
6. Carriage rubber fittings;
7. Glassware, all kinds;
8. Hand tools;
9. Bolts and nuts of all kind and sizes;
10. Nails;
11. Rivets of all kinds and sizes.

The Railway Department entrust to the Indian Stores Department an ever increasing volume of purchase and inspection work; it is largely due to this increased business from Railways that the purchase returns of the Department have been so well maintained during the period of depression and financial stringency. The value of purchases made for Railway Administrations as a whole during the year amounted to Rs.1,76,05,708 against Rs.1,52,77,478 purchased during the previous year. An analysis of the increase shows that purchases on behalf of State Railways accounted for an extra turnover amounting to Rs.24,08,156 while purchases for Company Railways declined by Rs.88,526.

Purchases on behalf of Major Local Governments.—The value of purchases made on behalf of major Local Governments amounted to Rs.59,39,207 against Rs.42,30,220 during 1932-33, an increase of Rs.17,08,987. This notable increase is mostly due to increased purchases made on behalf of the Punjab Government which amounted to Rs.33,33,816 against Rs.16,06,699 in 1932-33, or an increase of Rs.17,27,117. The value of the demands received from the Governments of Madras, Burma and Bihar and Orissa increased by Rs.68,520 but on the other hand demands from the Governments of Bengal, Bombay and the United Provinces decreased by Rs.3;16,145.

Details of Important Purchases.—The more important purchases made during the year are shown below :—

Textiles and Leather Stores.

	Amount. Rs.
Drills, khaki coloured—bleached and grey	11,43,000
Cotton waste	6,18,000
Pugree, cloths, khaki, coloured, white, muslin, calico, etc. ...	6,02,000
Blankets, woollen	5,41,000
Flannel	5,28,000
Jackets, cardigan, jerseys, woollen, banians, etc.	4,08,000
Serges	3,30,000
Socks and stockings	3,10,000

	Amount. Rs.
Yarn, cotton and woollen	2,72,000
Putties, cotton and woollen	2,71,000
Cloth, drab mixtures, waterproof and greatcoat cloth	2,23,000
Nets and netting, mosquito	2,02,000
Rugs, horse	1,88,000
Tents and tent components	1,64,000
Sheets, barrack and hospital	1,63,000
Flannelette	1,54,000
Canvas, flax, cotton, jute, hemp, etc.	1,33,000
Wool cotton, absorbent	1,10,000
Durries, cotton	1,08,000
Dhotie cloth, dosuti cloth and long cloth	95,000
Bags, postal, jute, flax, leather, etc.	92,000
Twill, cotton	88,000
Boots and shoes	81,000
Paulins, flax, jute and canvas	73,000
Duck, cotton and flax	72,000
Leather cloth, binding furniture, linoleum, etc.	94,000
Thread, sewing and twine	76,000
Ropes, head and heel, and ropes picketting	67,000
Cordages, manilla, hawser	65,000
Blanketting cloth	64,000
Drawers, cotton and woollen	63,000
Garments, uniform	61,000
Capes and coats, waterproof	58,000
Hats, felt	57,000
Tape and webbing	54,000
Hessians and gunnies	52,000

Engineering and Allied Stores.

	Amount. Rs.
Road dressing materials	18,89,000
Paints, enamels and varnishes, including dry pigments	17,55,000
Oil, kerosene	15,96,000
Mild steel sections and sheets	14,65,000
Cement	13,35,000
Oil, lubricating (cylinder, ordinary and superheat and miscellaneous)	12,94,000
Oil, fuel	10,96,000
Oil, axle	9,44,000
Distribution and transmission line material	9,04,000
Lamps, electric, of types (including train-lighting and automobile)	8,09,000
Steel axles, tyres and wheels for railway carriages and wagons and locomotives and tenders	7,56,000
Train lighting equipment, including dynamos, batteries, cells, belting and spares	7,20,000
Locomotives, Diesel electric	6,62,000
Pipes and specials, cast iron	4,71,000
Fans, electric, ceiling, table and carriage	4,56,000
Transformers, switchgear and switchboard	3,75,000
Pumping plant and equipment	3,75,000
Cables, electric	3,62,000
Vacuum brake fittings	3,43,000
Motor vehicles and spares	3,50,000
Wires, galvanised, steel and iron	3,41,000

	Amount. Rs.
Primary and secondary cells and spares (other than train lighting cells)	3,41,000
Barges, transverse, loading, wagon	3,27,000
Pipes, mild steel and fittings	3,28,000
Pig iron	2,91,000
Wire, copper	2,76,000
Sheets, steel, piling	2,90,000
Tyres and tubes, motor	2,51,000
Oil, castor	2,35,000
Linseed oils, raw and double boiled	2,35,000
Tubes, boiler, smoke and flue and spares for locomotives	2,34,000
Pipes and fittings	1,97,000
Workshop machinery and tools	1,95,000
Oxygen gas	1,86,000
Petrol	1,74,000
Miscellaneous plant and spare parts of machinery	1,54,000
Turpentine, genuine and substitute	1,42,000
Rail brakes and electrical equipment for operating pump-yard point	1,40,000
Electric generating plant	1,37,000
Sheets, galvanised iron, corrugated	1,34,000
Meters, electric	1,18,000
Firebricks and fireclay	1,11,000
Tanks, steel and staging	1,09,000
Roofing materials for railway carriages	1,03,000
Asbestos cement sheets and accessories	97,000
Greases	93,000
Coal, and coke	93,000
Creosote	90,000
Road rollers and spares	89,000
Oil, gas making	86,000
Meters, water and spares	83,000
Sheets, iron	82,000
Calcium carbide	75,000
Charpoys, iron pipe	69,000
Valves, sluice	68,000
Electrodes	66,000
Gear wheels for railway rolling stock	63,000
Tools, track	59,000
Timber	57,000
Electrical fittings	59,000
Fish bolts and nuts	53,000
Fencing wire and gates	51,000

Encouragement of Indian Industries and Local Purchases.—United Kingdom contractors will realise from the following summary of the work carried out by the Indian Stores Department during the year what a powerful stimulus it applies to local industries :—

> " Efforts were continued during the year to assist manufacturers in India to improve the quality of their products by means of technical advice and suggestions in the course of purchase, inspection and testing materials, and every endeavour was made to substitute supplies of indigenous manufacture, wherever possible, without sacrifice of economy and efficiency. A few typical concrete cases are cited in the following paragraphs to show the range and nature of the assistance given :—

The Textile Industry.—The following textile products received special attention during the year:—

(1) *Duck cotton, for nose bags.*—The Army used to obtain duck cotton for nose bags from abroad. In 1928 this Department took up the question of exploring possibilities of obtaining duck cotton of indigenous manufacture. It transpired that only one mill in Bombay Presidency could manufacture duck of acceptable quality though not up to the specification in all respects. A trial order was placed with them on the condition that the defects already pointed out should be rectified. The supply offered by the firm was accepted by the Army although certain defects were still found in supplies.

Later on the Army Inspectorate asked for the lowest quotations for duck cotton of Indian manufacture to consider it in connection with substitutes for imported material. Firms likely to be interested in this material were addressed. One firm in Cawnpore who some time back showed their willingness to consider the question of installing sufficient looms to enable them to manufacture duck submitted a sample which was reported to contain certain imperfections such as black specks (cotton leaf), occasional coloured yarn, etc. The Army Inspector anticipated that these defects would disappear with experience. The locally produced material was sealed in supersession of imported cotton duck and the specification modified to suit Indian manufacture.

Against indents received from the Army, orders were placed with the Cawnpore firm. The supplies though not up to the specification in several minor respects which normally would probably warrant rejection were, however, accepted as a special case to encourage indigenous production. It was found against subsequent demands that material up to the specification was not manufactured by the mills at Cawnpore and in Bombay Presidency and the Army Inspector had reported adversely on their tender samples. As the result of taking up the matter with the Army authorities it was agreed that in view of the fact that both these mills had equipped themselves with special looms for manufacture of Army duck and had already made supplies to the Army in part, orders should be placed with them. It was impressed on the firms that specified improvements over their tender samples should be made in bulk supplies.

The mill in the Bombay Presidency have distinctly improved their supplies and their material complies with the specification with the exception of scouring loss which is 4·62% against 2·5% permitted.

The manufacture of duck cotton fully up to the specification has been established in India, substantially below the price of imported material.

(2) *Canvas waterproof for anti-gas haversacks.*—In 1929 an inquiry was made of this Department by the Army whether a suitable Indian material could be found to substitute canvas flax costing one shilling per yard used for respirator anti-gas harness No. 4 Mk. I.

A sample of cotton canvas at Rs. 1—1—0 per yard manufactured by a Madras firm was furnished to the Army Inspectorate for test. Further investigations were dropped as drill cotton khaki already in service was adopted for use in lieu of imported flax canvas.

Indigenous cotton canvas referred to above, was, however, considered by the Army authorities for haversacks but they stated that the firm were unable to turn out the monthly quantity required and the increase in cost was also against the use of this canvas. The firm offered to meet the requirements and quoted As. 13 per yard for orders of big quantities. It was decided that this canvas when waterproofed could be accepted as a suitable alternative for making anti-gas haversacks. A specification based on the indigenous sample was drawn up by the Army Inspectorate.

To explore the possibilities of obtaining similar material from other

sources in the country, enquiries were made from other likely manufacturers. A sample submitted by a waterproofing firm in Calcutta was the only sample considered suitable excepting shade which was required to match that of khaki service drill. Fresh samples submitted were not considered suitable and the firm stated that further improvement in the shade was not possible if this standard of proofing was retained.

Against indents received from the Army, orders were placed in the first instance with the Madras firm for unproofed material at annas 9 pies 9 per yard and with a waterproofing firm for proofing only at annas 4 pies 6 per yard. Later on the Madras firm were asked whether they could supply this canvas in the proofed state. The sample submitted by them was reported to be satisfactory both as regards proofing and shade and the price quoted for the material was annas ten pies three per yard. An order was subsequently placed with them.

The action taken by this Department in conjunction with the Army Inspectorate has resulted in the price for suitable Indian made material being reduced from the figure of Rs.1—5—0 per yard for proofed material to annas ten pies three per yard, a drop of more than 50%.

(3) *Felt sheets, white.*—Felt sheets, white, $\frac{1}{8}''$ thick for the use of the Army in India had hitherto been imported. With a view to divert demands, if possible, manufacturers in India were asked to submit samples to the Army Inspectorate at Cawnpore, for test, if they were in a position to undertake manufacture of felt to the army specification.

In consequence two firms succeeded in producing samples of felt which were considered by the Army Inspector as suitable substitutes for the imported material.

(4) *Thread, sewing.*—Prior to 1924, all requirements of cotton thread were met from imported supplies. Since then an Indian mill has supplied sewing threads of various counts and shades to several indenting officers against contracts entered into by this department. This is the only Indian concern interested in the manufacture of sewing threads. It has been able to compete generally with well-known imported makes on even terms. In only a very few instances has a small preference been given to aid this indigenous industry.

A complaint was received in 1932 that the sewing thread of khaki drill garments had rapidly faded and become white. Khaki threads of well known imported makes and of Indian make were subjected to tests. The results showed that indigenous supplies were alone acceptable.

Recently further tests were necessary and these have shown that the Indian mill was the only source from which khaki sewing threads of acceptable shade were obtainable. The strength also of these threads was up to the best imported brands.

(5) *Great coat cloth.*—Several indentors were using an imported drab mixture cloth for great coats. A Bombay firm were persuaded to take up manufacture of a suitable substitute for this cloth. The sample submitted in their first attempt was found unsuitable. The defects were intimated for their guidance and in consequence, at their subsequent attempt, they were able to manufacture material which was considered to compare very favourably with the imported supplies.

Indenting officers who had obtained previously imported cloth were addressed in the matter and informed that the Indian cloth was stronger and cheaper than imported material. Several indenting officers have accepted the indigenous cloth and placed their indents on this Department.

The Engineering Industry.—Every possible encouragement and assistance was given during the year to the engineering industries by the Department. A few notable instances are given below:—

(1) *Castings.*—As stated in last year's report, inspection of the entire output of castings at the works of two firms in Bombay continued to be carried out during the year under review. Another firm in Bombay also asked for similar inspection and this was arranged. Advice was given by this Department's inspecting officers at Bombay as difficulties arose to ensure good castings being turned out.

(2) *Gauges, enamelled iron.*—An officer of the Public Works Department of a local Government who had hitherto been using imported gauges, iron enamelled, blue ground, white figured, 4½" wide, with numeral plates, enquired of this Department whether arrangements could be made to supply these gauges of Indian make. A drawing acceptable to the indenting officer was prepared and enquiries instituted from the trade. A manufacturing concern furnished acceptable samples which were at rates on the level of prices previously paid by the indenting officer for imported articles. An order valued at Rs.2,300 approximately was placed on his account.

(3) *Handcuffs, adjustable.*—An indent for handcuffs, adjustable, was placed by the Inspector-General of Police of a local Government on the Director-General, India Store Department, London. This Department obtained a standard sample used by the indenting officer and supplied a counter sample of Indian make. The general finish and workmanship of that sample was in no way inferior to imported handcuffs and the price was favourable. It was approved by the officer concerned and he agreed to purchase his future requirements from Indian sources.

The Police Department of another local Government were also obtaining their requirements of handcuffs, adjustable from abroad. It was suggested that an indent be placed on this Department for 12 pairs of Indian made handcuffs for trial purposes as handcuffs of suitable quality were manufactured at Aligarh. The supply made proved satisfactory. In consequence the indenting officer agreed to purchase his future requirements in India. An order for 600 pairs was subsequently placed on his behalf.

(4) *Paint remover.*—A Railway administration had hitherto been using imported material. Arrangements were made to carry out comparative tests on Indian made and imported paint removers at the Government Test House, Alipore. The sample submitted by one manufacturing concern proved to be superior to others in effectiveness. As the price also was competitive, the Railway concerned was advised to use this material and this has been agreed to.

(5) *Link clips.*—Samples of link clips together with quotations were invited from importers as well as from a manufacturing concern in Bombay, with a view to divert supplies to Indian manufacturers, if possible. The locally made samples were found on inspection to be deficient in certain respects. The defects were communicated to the firm to assist them in improving the quality of manufactures. The firm has made several improvements. These show that there is a reasonable prospect that suitable clips will be made by this firm.

A firm in Calcutta, whose chief activities have been the making of metal parts for umbrellas approached this Department. Their factory was inspected and as they appeared well equipped it was suggested that they should undertake the manufacture of link clips. The matter was taken up successfully and satisfactory samples were produced at competitive prices. A contract for a year has been entered into with the firm by the Calcutta Purchase Circle.

(6) *Porcelain insulators.*—The manufacture of porcelain insulators of all varieties suitable for electrical purposes was commenced by a factory in an Indian State in Southern India. The factory was anxious to secure orders from this Department for insulators, and submitted a few samples for inspection and requested advice and suggestions for improvements considered necessary, before their products could be accepted by this Department for Government requirements. Visual examination of samples was carried out and detailed criticism thereof indicating the directions in which improvement was deemed essential was communicated to the factory. The factory has been subsequently placed on the list of approved contractors maintained by this Department.

(7) *Intervehicle coupler.*—In 1931 it was reported that intervehicle couplers for railways manufactured by a firm in Bombay were not found suitable by certain State Railways and imported supplies were being demanded in consequence. With a view to assist this indigenous industry and to divert future demands to this country, if possible, samples were obtained from the firm for trial on certain railways. The defects found as a result of such trials were communicated to the manufacturers for eradication. They have now evolved a new design of coupler which has been accepted and approved by the Railway Board for use on State Railways.

Among other articles to which special attention was devoted during the year for the purpose of developing their manufacture in India or their utilisation in preference to imported articles the following may be mentioned:—

Bedsteads, steelyard scales, gravity cocks, handcuffs of various types, safes, locks, clasp knives, cooking ranges, hurricane lanterns, phowrahs, daos, peevies, brushes, whitelead, glassware, soaps, crockery, disinfectants, lenses for night road signs, red oxide, stannic chloride, enamelware, earthenware troughing, buttons, badges, etc.

Exhibition of Indian Manufactures.—During the year under review the following additional exhibits of articles wholly or partially made in India were received from manufacturing concerns in India.

Cement, chemical balances, sanitary fittings (salt and white glazed), pig iron, crockery and chinaware, magnesium chloride and steel furniture.

This collection of exhibits of articles of Indian manufacture at present comprises:—

Cast iron and stone ware pipes, fire extinguishers, insulators, castings, scientific instruments, pumps, railway materials, electric cables, electric fans (table and ceiling), tube well strainer, models of a sugarcane mill, a tank and a steel transmission tower, a cooking range, chemical balances, sanitary fittings (salt and white glazed), pig iron, water fittings, rolled steel sections, agricultural implements, wire and wire nails, steel cupboards, a safe, a steel rack, oils, paints, varnishes, chemicals, acids, disinfectants, magnesium chloride, cement, rosin, turpentine, aluminiumware, glassware, enamelware, crockery, floor tiles, fire bricks, pottery goods, chinaware, door and window fittings, locks, badges, polishes, metal and silver, soaps, leather goods, ropes and cordage, sewing threads, surgical dressings, textile fabrics, etc."

Important Purchases of Articles of Indian Manufacture.—The Department continued its efforts to substitute, wherever possible, and without

sacrifice of efficiency or economy, articles of indigenous manufacture for the imported products. The following is a list of the more important contracts placed during the year for products which were wholly or partially produced or manufactured in India:—

Textile materials.

	Amount. *Rs.*
Drill, khaki, coloured	11,51,000
Cotton waste	6,18,000
Pugree cloths, khaki, coloured, white, etc.	5,96,000
Blankets, woollen	5,77,000
Jackets, cardigan, jerseys, woollen	4,08,000
Socks and stockings	3,10,000
Serges	2,78,000
Yarn, cotton and woollen	2,67,000
Rugs, horse	1,88,000
Tents and tent components	1,64,000
Sheets, barrack and hospitals	1,63,000
Flannelette	1,54,000
Wool, cotton, absorbent	1,10,000
Durries, cotton	1,08,000
Dhotie cloth, dosuti and long cloth	95,000
Bags, postal, leather, jute, flax, etc.	92,000
Twill, cotton	88,000
Boots and shoes	81,000
Duck, cotton	72,000
Ropes, Head and heel	67,000
Twine, jute, hemp, etc.	67,000
Blanketting cloth	64,000
Coats and capes, waterproof	56,000
Tape and webbing	54,000
Cordages, manilla, Hawser	52,000
Hessians and gunnies	52,000
Thread, sewing	44,000
Great coats and overcoats	39,000
Cloth jaconet, madapollam, dungry, etc.	38,000
Garments, uniform	38,000
Putties, cotton and woollen	37,000
Paulins, flax, jute and canvas	32,000
Kullas and lungies	32,000
Gauze absorbent	31,000
Dusters, handkerchiefs, cloths, table, tea, tray, etc.	31,000
Great coat cloth	30,000
Accoutrements, Police, bags, ration, etc.	26,000
Towels and towelling	25,000
Covers and nets, tanks, mule	22,000
Buntings and flags	20,000
Wool, sheep, yarn, packing, worsted, etc.	20,000
Felt	19,000
Silicia cloth, cloth cotton and corduroy	18,000
Covers, water bottle	18,000
Bandage cloth	17,000
Carpets, cloth, woollen, etc.	17,000
Flannel	16,000
Cases, slip, pillow, mattresses, etc.	14,000
Shirts, shorts, blouses, etc.	14,000
Cordages, cotton	13,000
Canvas, jute	13,000

Engineering and allied stores.

	Amount. Rs.
Road dressing materials	15,86,000
Oil, kerosene	14,77,000
Cement	13,27,000
Paints, including dry pigments	11,85,000
Mild steel sections and sheets	9,87,000
Oil, axle, all weather	6,93,000
Pipes and specials, cast iron	4,36,000
Transverse loading wagon barges and plate type shore connecting girder	3,27,000
Pig iron	2,86,000
Oil, castor	2,35,000
Oil, linseed, raw and double-boiled	2,35,000
Oxygen gas	1,82,000
Enamels and varnishes	1,77,000
Conductors, copper	1,71,000
Petrol	1,64,000
Cables, electric	1,54,000
Turpentine, genuine and substitute	1,42,000
Firebricks and fireclay	1,01,000
Tanks, steel	94,000
Creosote	90,000
Vacuum brake fittings	72,000
Charpoys, iron pipe	69,000
Fans, electric	69,000
Coal	64,000
Insulators, porcelain	64,000
Timber	64,000
Oils, lubricating, and greases	62,000
Soaps, soft and hard	47,000
Bituminous solution	39,000
Oil, suitable for gas making	36,000
Tools, tracks	35,000
Locks	31,000
Oil, mineral, cleaning	30,000
Acids	30,000
Fishbolts and nuts	29,000
Disinfecting fluid	25,000
Cells, electric and accessories	21,000
Cords, flexible	21,000
Dissolved acetylene gas	21,000
Coal tar for painting purposes and tar crude	21,000
Equaliser beams	17,000
Cooking ranges	17,000
Sulphate of alumina	14,000
Sulphate of copper	12,000
Graphite	11,000
Spirit, denatured, methylated	11,000
Water fittings	11,000
Point rodding	11,000
Cylinders and piston rods	10,000

Purchases of Railway Materials.—The most recently published report on Indian Railways for 1932-33 states that the value of stores purchased by Class I Railways (excluding H.E.H. the Nizam's State and Jodhpur Railways which are mainly the property of Indian States) shows a large decrease from Rs.15·99 crores in 1931-32 to Rs.11·04 crores in 1932-33. The principal

decreases were under rolling stock (Rs.196 lakhs), permanent way (Rs.161 lakhs), tools and stores (Rs.70 lakhs) and other material (Rs.29 lakhs). Of the total decrease of Rs.4·95 crores, Rs.2·43 crores were accounted for under " imported materials " and Rs.2·52 crores were under " indigenous materials," the decrease under the latter head being mainly under permanent way (Rs.148 lakhs), tools and stores (Rs.35 lakhs), other materials (Rs.31 lakhs) and rolling stock (Rs.28 lakhs).

The following table records the amounts spent under each main heading :—

Heading.	Value of Imported Materials.			Value of indigenous materials.	Total purchases 1932–33.	Total purchases 1931–32.
	Purchased direct.	Purchased through Agents in India.	Total imported materials.			
	Rs. crores.	Rs. crores.	Rs. crores.	Rs. crores.	Rs. crores.	Rs. crores.
Rolling stock ...	0·47	0·57	1·04	0·29	1·33	3·29
Tools and stores	0·13	1·42	1·55	1·49	3·04	3·74
Permanent way...	0·03	0·12	0·15	1·92	2·07	3·68
Electric plant ...	0·14	0·47	0·61	0·01	0·62	0·87
Building and station materials and fencing.	0·01	0·10	0·11	0·07	0·18	0·29
Bridge work ...	—	0·07	0·07	0·06	0·13	0·15
Workshop machinery.	0·07	0·18	0·25	—	0·25	0·26
Engineer's plant	0·03	0·10	0·13	0·01	0·14	0·14
Other materials*	—	0·30	0·30	2·98	3·28	3·57
Total	0·88	3·33	4·21	6·83	11·04	15·99

* Other materials consist of coal and coke, stone, bricks, lime and ballast, etc.

Purchase of Stores by Railways through the Indian Stores Department.—The total value of stores purchased by railways through the agency of the Indian Stores Department during the year under review amounted to Rs.152·77 lakhs of which Rs.13·43 lakhs represented the value of textiles and Rs.139·34 lakhs that of engineering, hardware and miscellaneous stores. The list of items, the purchase of which by State-managed Railways through the agency of the Indian Stores Department is obligatory, was reviewed and a number of items of railway stores (e.g., lifts, pumping plant, water columns, tanks, telegraph and telephone apparatus, steel poles, etc.) were added to the list.

The value of stores purchased through the Indian Stores Department has increased from Rs.126·14 lakhs in the previous year to Rs.152·77 lakhs during the year under review despite a fall in market prices. A comparison of the total value of stores purchased by railways during recent years with the value of purchases made

by them through the Indian Stores Department during the same period will also show that there has been a considerable increase in the percentage of such purchases.

During the year 1932-33 orders amounting to approximately 34,714 tons of rails and 1,650 tons of fishplates were placed with the Tata Iron and Steel Company Ltd. In this tonnage is included an order for 11,143 tons of 115 lbs. section rails for the East Indian Railway.

The capital expenditure programme for the current year will be found in Chapter I on page 31 while the rolling stock programme for 1935-36 will be found in page 32.

Purchase of Army Requirements.—The position remains unchanged since the introduction of the rupee tender system on January 1st, 1931. The bulk of the imported stores contracted for in India are purchased by the Director of Contracts at Army Headquarters, Simla, who acts for all branches of the Army in India. Lethal weapons, munitions of war, technical apparatus and equipment and any other stores required by the Naval, Military or Air Forces of the Crown in India for which drawings, patterns, specifications or designs have been issued, prescribed or announced by the Admiralty, War Office, Air Ministry, Government of India or Commander-in-Chief, in India are, by virtue of Rule 8 of the revised Stores Rules, obtained by indent on the India Store Department, London, unless they are available in India in accordance with the prescribed drawing, pattern, specification or design. The Indian Stores Department in India purchase the Army textiles, motor transport vehicles, and also the engineering requirements of the Engineer-in-Chief's branch of Army Headquarters. The remainder of the heterogeneous mass of stores required by a modern army is purchased by the Director of Contracts. The wide variety of the items in which he is interested is shown in the following list of the fifty-two main groups :—

"1. Acids and Chemicals (including artificial manure); 2. Ammunition and Explosives; 3. Batteries and Cells (primary and secondary); 4. Boilers; 5. Brushware; 6. Crockery; 7. Cutlery and Plate; 8. Dairy Requisites; 9. Electric Cables and Wires; 10. Electrical Stores, miscellaneous; 11. Engines, internal combustion; 12. Engines, steam; 13. Foodstuffs; 14. Footwear; 15. Glassware; 16. Haberdashery; 17. Hardware and Ironmongery; 18. Headwear; 19. Hollow ware, aluminium; 20. Hollow ware, enamel; 21. Hollow ware, iron; 22. Instruments, musical; 23. Instruments, optical, scientific and surveying; 24. Iron and Steel (and their alloys); 25. Leather and Products; 26. Machinery, Agricultural and Dairy; 27. Machinery, miscellaneous; 28. Machinery, workshop; 29. Metals, non-ferrous (ingot and sections); 30. Mill Stores; 31. Miscellaneous Stores; 32. Oil and Colourmen's Stores; 33. Oils (mineral and vegetable) and Lubricants; 34. Packing materials; 35. Paints, Enamels, and Varnishes; 36. Photographic stores; 37. Road Dressing Materials; 38. Rubber Goods; 39. Ship Chandlers' Stores; 40. Soap; 41. Stationery and Drawing Office and General Office Requisites; 42. Tanning materials; 43. Telegraph, telephone and wireless stores; 44. Textiles; 45. Timber; 46. Tinware; 47. Tools; 48. Vehicles

and Accessories; 49. Weighing Appliances; 50. Wickerwork; 51. Wire (steel and iron) and Products; and 52. Woodware."

In view of the imperative need for absolute reliability in Army equipment, the greatest stress is laid by the Director of Contracts upon sound quality. Purchases are made at the keenest possible prices, but the Army Department cannot afford to take risks by reducing quality, either in order to effect economies or to encourage local industries.

The Deputy Director-General (Stores) of the Indian Medical Service purchases, through his medical stores depots at Calcutta, Bombay, Madras, Lahore and Rangoon, considerable quantities of drugs, medicines, dressings and surgical instruments and apparatus. A large proportion of the medical stores required is still bought by home indent on the Director-General of Stores in London. Local purchases of indigenous materials tend to increase. The medical stores depots at Madras and Bombay now manufacture (or rather make-up) a large number of preparations from indigenous raw materials. In Bombay, a local firm manufacture surgical instruments in a factory adjacent to the depot. These instruments are stated to meet the need of many Indian surgeons or hospitals for instruments which, although perhaps not being of the very finest quality and finish as used in Europe or the U.S.A., are sufficiently good for the purpose and are attractive on account of their low price.

Department of Posts and Telegraphs.—The Director-General of Posts and Telegraphs in his Annual Report for 1932-33 summarises the stores transactions of his department during the past two years in the following table :—

	1931-32.	1932-33.
	Rs.	*Rs.*
Opening balance	61,17,000	64,76,000
Receipts	39,56,000	35,64,000
Issues	35,97,000	41,90,000
Closing balance	64,76,000	58,50,000

The stores used in the telegraph branch of the department consist principally of line material, such as posts, brackets, insulators and wires; and instruments of various types. These are obtained by manufacture in the departmental workshops at Alipore, Calcutta, which are fully equipped shops capable of turning out work of high quality; by purchase through the agency of the Indian Stores Department; or by direct purchase in the case of special apparatus. The principal store depot is at Alipore but important stocks are held at Bombay, Lahore, Madras and Rangoon. Provision is made in these for store requirements for telegraph work done for railways and canals as well as for departmental requirements.

In 1932-33, as the Director-General states, the department continued to pursue the policy of purchasing or manufacturing, in India, the stores required by it and of restricting to the utmost its indents for stores to be supplied from abroad. *The total value of stores received from the United Kingdom during the year was*

*Rs.*4,000 *only as compared with Rs.*81,000 *in* 1931-32, while the value of stores purchased in India decreased from Rs.23,37,000 in 1931-32 to Rs.17,84,000 in 1932-33.

In the telegraph workshops 151,700 instruments, including components, were manufactured and 17,900 were repaired during the year. In the construction branch, 14,000 galvanised tubes for telegraph poles and 800 brackets with fittings for supporting line wires were made. The outturn from the iron foundry weighed 330 tons. The low output from the workshops was due to the reduction of many activities during the period of financial depression.

The Indian Canteen Contractors' Syndicate Ltd.—I have traced, in previous reports, the origin and formation of this quasi-official organisation. The following note, specially contributed by the Managing Director, will be read with interest by United Kingdom purveyors of provisions and canteen stores :—

"The Canteen Contractors' Syndicate Ltd., which is the Indian Contractors' own importing and distributing agency for all canteen supplies for British Army and Royal Air Force Institutes throughout India, show a further substantial increase of turnover for the year ended March, 1934. Sales of imported goods alone to Members again increased by over rupees one lakh. Compared with those of the Indian shopkeeper, the overheads of the Canteen Contractors are disproportionately heavy, necessitating their buying at the lowest prices. Quality and freshness also have to be doubly assured. Hence the creation in 1928 of their own importing agency, with its depots at the four main ports—Karachi, Calcutta, Bombay and Madras.

This organisation, in full operation in peace, can be immediately expanded for the needs of war. To this end the Managing Director is appointed by the Indian Government and comes within the department of the Quartermaster-General in India. Otherwise the Company is Indian both as to Directors and Members; the latter being confined strictly to those Contractors actually fulfilling canteen contracts. Shares cannot be retained, nor are goods continued to be supplied once a contract is surrendered. The Chairman of the Syndicate is the Hon'ble Sir Phiroze Sethna, O.B.E., a prominent Bombay business man.

This year has seen the appointment of the Syndicate's own London Buying and Shipping Agents :—Messrs. L. R. Parker & Co. (1931) Ltd., 109, Fenchurch Street, E.C.3, with terms Cash f.o.b. English ports; and bank, The Mercantile Bank of India Ltd., 15, Gracechurch Street, E.C.3. This development had become imperative owing to the ever widening range of the members' demands. which now include such needs as dairy machinery and privately crested glass and crockery ware. The Syndicate's Billiards Section, with its staff of visiting mechanics, is already an established success. Suppliers throughout show keen competition for the Syndicate's business, appreciating that its supplies are limited for sale only in Regimental Canteens and Messes in India, and that strict watch is kept to see that this condition is observed.

A feature of the past year was the holding of a 'Canteen Contractors' Syndicate Own Week', promoting displays in 120 Institute Grocery Shops of 'C.C.S. Own' and Monopoly-Label Packs reserved by manufacturers specially for this Canteen Trade.

Inquiries may be addressed to the Syndicate's Managing Director, Mr. A. C. Murray, at its Head Office at Oriental Building, McLeod Road, Karachi, India, or to its Buying and Shipping Agents, Messrs. L. R. Parker & Co. (1931) Ltd., mentioned above."

CHAPTER V.

DETAILED EXAMINATION OF THE LEADING IMPORT TRADES WITH SPECIAL REFERENCE TO CHANGES IN THE CHARACTER, VOLUME AND ORIGIN OF THE IMPORTS DURING THE FISCAL YEAR APRIL 1st, 1933, TO MARCH 31st, 1934.

NOTE.—*Unless otherwise stated, the statistics in this section are drawn from the publications of the Department of Statistics, Government of India, and relate to imports on private account only. Since all Indian statistics are now given in rupees and not in sterling, and in view of the labour which would be involved in converting into sterling, the lakh of rupees (Rs.*100,000 *or £*7,500 *at 1s. 6d. exchange) has been taken as the usual unit. It is fully realised that this is not, from the point of view of the reader in the United Kingdom, so convenient a unit as the £ sterling.*

MANUFACTURED AND MAINLY MANUFACTURED GOODS.

Cotton Textiles—*Yarns.*—The slight improvement recorded in last year's report was not maintained and the year 1933-34 was one of intense depression with falling prices. These conditions applied equally to Indian mill products and to imports, which contracted from 45 million lbs. valued at Rs.379 lakhs to 32 million lbs. valued at Rs.257 lakhs.

The following table gives the imports of grey yarns arranged according to counts :—

Counts.	1932-33. *lbs.*	1933-34. *lbs.*
Nos. 1 to 10	Nil.	8,000
Nos. 11 to 20	692,822	189,858
Nos. 21 to 30	717,397	542,636
Nos. 31 to 40	19,378,837	13,516,471
Above 40's	5,382,496	4,493,182
Two-folds	5,404,646	4,342,200
Total Imports (grey)	31,576,198	23,092,347

China sent a small parcel of 10's. In 11's to 20's, the United Kingdom share fell from 70,000 to 37,000 lbs., and that of Japan from 614,000 to 41,600 lbs. Imports from China, however, rose from 6,000 to 111,000 lbs. Imports of 21's to 30's were drawn from the United Kingdom (412,000 lbs.) and Japan (130,000 lbs.). In the range from 31's to 40's (which are largely 32's and 40's) imports from the United Kingdom fell slightly from 1,410,000 to 1,269,000 lbs., while those from Japan dropped from 6,232,000 to

4,613,000 lbs., and China from 11,736,000 to 7,634,000 lbs. Counts above 40's were almost entirely drawn from the United Kingdom, but arrivals from Japan rose from 82,100 lbs. to 147,620 lbs. Imports of United Kingdom two-fold yarns fell from 835,896 lbs. to 387,105 lbs., those from Japan from 2,852,520 lbs. to 1,362,639 lbs., while arrivals from " other countries " (China) rose from 1,716,230 lbs. to 2,592,456 lbs.

The next table sets forth the details of the imports of bleached yarns :—

Counts.	1932-33. *lbs.*	1933-34. *lbs.*
Nos. 1 to 20	3,898	1,018
Nos. 21 to 30	53,254	43,199
Nos. 31 to 40	913,625	360,445
Above 40's	788,335	911,649
Two-folds	2,294,921	1,628,597
Total Imports (bleached)	4,054,033	2,944,908

The United Kingdom supplied the whole of the imported counts of 21's to 40's. In single bleached spinnings above 40's, Lancashire mills provided 839,349 lbs. as compared with 767,765 lbs. in the previous year. Arrivals from Japan totalled 72,300 lbs. Imports of United Kingdom bleached two-folds fell from 1,673,398 lbs. to 1,171,817 lbs., and those from Japan from 619,510 lbs. to 456,200 lbs.

Coloured yarns were imported as follows :—

Counts.	1932-33. *lbs.*	1933-34. *lbs.*
Nos. 1 to 20	204,763	126,240
Nos. 21 to 30	295,795	202,538
Nos. 31 to 40	604,462	341,092
Above 40's	227,083	185,676
Two-folds	336,149	254,919
Total Imports (coloured)	1,668,252	1,110,465

The United Kingdom supplied practically all the coloured yarns with the exception of 30,000 lbs. of 31's to 40's from the Continent and 7,900 lbs. of Japanese two-folds.

Imports of mercerised yarns fell from 7,774,029 lbs. to 4,863,812 lbs. Of the total, no less than 4,743,194 lbs. consisted of two-folds, drawn from Japan, with the exception of a trifling 22,291 lbs. from the United Kingdom. The Japanese Spinners have for some years had a virtual monopoly of this trade, but their shipments slumped heavily last year from 7,562,989 lbs. to 4,720,903 lbs.

The sources of supply of yarns of all kinds were as follows :—

Principal Countries of Consignment.	1932–33.		1933–34.	
	lbs.	Rs.(lakhs).	lbs.	Rs.(lakhs).
United Kingdom	13,357,065	1,32	9,952,435	96
Switzerland	65,900	1	13,500	†
Italy	5,444	*	18,090	‡
China (including Hongkong)...	13,325,400	84	10,229,275	65
Japan	18,148,809	1,61	11,683,936	96
Other Countries	200,764	1	157,927	1
Total	45,103,382	3,79	32,055,163	2,58

* Rs. 5,387. † Rs. 14,426. ‡ Rs. 17,280.

Indian Yarn Production.—The imports of cotton yarns are negligible when compared with the large and growing production of the Indian Mills :—

	Imports in lbs. (1,000).	*Indian Mills Production in lbs.* (1,000).
Annual Average for the 5 years 1909-10 to 1913-14	41,794	646,757
1913-14 (pre-war year)	44,171	682,777
1929-30	43,882	833,560
1930-31	29,140	867,279
1931-32	31,575	966,373
1932-33	45,103	1,016,418
1933-34	32,055	921,061

The next table compares by counts the quantities of imported cotton twist and yarn with the quantities produced in Indian Mills :—

	1913–14. (pre-war year).		1930–31.		1931–32.		1932–33.		1933–34.	
	Imports.	Production.	Imports.	Production.	Imports.	Production.	Imports.	Production.	Imports.	Production.
	lbs. (1,000).	lbs. (1,000).	lbs. (1,000).	lbs. (1,000).	lbs. (1,000).	lbs. (1,000).	lbs. (1,000).	lbs. (1,000).	lbs. (1,000).	lbs. (1,000).
Cotton twist and yarn :—										
Nos. 1 to 20	1,254	492,693	454	513,739	308	562,057	901	599,452	327	547,431
Nos. 21 to 25	896	123,995	251	166,344	227	185,937	311	177,343	207	139,331
Nos. 26 to 30	3,686	42,999	227	93,345	523	108,068	757	120,169	581	115,496
Nos. 31 to 40	23,657	19,712	14,755	60,747	14,308	71,073	20,908	77,185	14,218	75,810
Above No. 40	7,859	2,699	4,273	27,311	5,252	34,002	6,429	36,594	5,709	37,358
Two-folds (doubles)	—	—	9,170	—	10,938	—	15,766	—	10,969	—
Unspecified descriptions and waste.	(a)6,819	679	10	5,793	19	5,236	31	5,675	44	5,635
TOTAL	44,171	682,777	29,140	867,279	31,575	966,373	45,103	1,016,418	32,055	921,061

(a) Includes white twist and yarn which commenced to be shown separately by counts from April, 1927.

The falling-off by nearly 100,000 lbs. in Indian yarn production largely reflects the unsatisfactory conditions prevailing in the Bombay industry during the year. More than half the reduction is in counts of 1's to 20's and a further 38% in counts from 21's to 35's. It will be noted that 87% of the total Indian mill production is still in counts below 31's (mainly in 20's, 21's, 22's, 24's and 30's). As might be expected from the materially reduced imports of U.S.A. and Egyptian cotton, there has been no great development in the spinning of finer counts during the year; in fact, the production of 31's to 40's fell from 77,185 lbs. to 75,810 lbs., while the output of counts above 40's rose only from 36,594 lbs. to 37,358 lbs. This, however, is likely to be merely a temporary setback to a movement which is rapidly gaining momentum. In 1932-33 no less than 14% of the total production of the Ahmedabad Mills was in counts above 30's and 4% above 40's.

The Bombay Millowners' Association in their Report for 1933 state that:—

> "Prices in the yarn market were unsatisfactory, especially in finer yarns and 40's were at one time sold as low as $10\frac{1}{4}$ annas a pound with Chinese and Japanese yarns available even at a quarter anna lower. Nominal quotations for 10's and 20's yarns were at the beginning of the year $5\frac{3}{4}$ and $7\frac{1}{4}$ annas a pound. Prices fell from these levels to 5 annas and $6\frac{1}{4}$ annas a pound with a few stray sales reported as low as 6 annas a pound for 20's. They rose again in May and June to the opening levels, but once again declined until they were quoted at 5 annas and $6\frac{1}{4}$ annas a pound. The year closed with prices in the neighbourhood of $5\frac{1}{4}$ annas and $6\frac{3}{4}$ annas a pound."

Piecegoods.—The following table shows the *quantities* of the three main classes of piecegoods imported during the last pre-war year and during the past five years:—

Year.	Grey (unbleached).	White (bleached).	Coloured, Printed or dyed.
	(All in million yards).		
1913–14	1,534·2	793·3	831·8
1929–30	925·5	473·6	483·5
1930–31	365·0	271·6	245·7
1931–32	249·4	279·7	223·2
1932–33	356·0	412·7	424·8
1933–34	230·1	261·9	268·7

The next statement gives the *values* in the same years :—

Year.	Grey (unbleached).	White (bleached).	Coloured, Printed or Dyed.
	£	£	£
*1913-14	16,966,515	9,523,204	11,907,683
†1929-30	15,694,355	9,956,641	11,359,972
†1930-31	5,150,163	4,653,855	5,113,835
†1931-32	2,943,303	3,994,276	3,789,625
†1932-33	3,804,960	5,494,106	6,255,902
†1933-34	2,293,343	3,549,364	3,940,681

* At exchange of 1s. 4d. † At exchange of 1s. 6d.

The marked improvement in 1932-33, which was commented on in last year's report, has not been maintained and imports of all classes of piecegoods with the exception of coloured varieties have receded to even lower levels than those of 1931-32. Although Rs.57 crores' worth of gold was exported during the year, much of which represented the savings of the population in the form of coin, ornaments or jewellery, the purchasing power thus released was not invested in imported piecegoods, partly because the further increase in the import duty on foreign piecegoods to 75% in June, 1933, stemmed the fall in prices of Japanese goods and partly because of the substitution of Indian mill goods. Despite slightly improved exports and a more favourable balance of trade, the consuming capacity of the Indian people, both in urban and rural districts, was at its lowest ebb and their purchases were confined to the barest necessities.

The following table gives the declared value per yard, in rupees, annas and pies, of the three main classes of goods over a period of years :—

Cotton Piecegoods.	1913-14.	1929-30.	1930-31.	1931-32.	1932-33.	1933-34.
	Rs. As. P.	Rs. As. P.	Rs. As. P.	Rs. As. P.	Rs. As. P.	Rs. As. P.
Grey (unbleached)	2 8	3 7	3 0	2 6	2 3	2 2
White (bleached)	2 11	4 6	3 8	3 1	2 11	2 11
Coloured, printed or dyed.	3 5	5 0	4 5	3 8	3 2	3 2

It will be remarked that the level of prices of imported goods are in some classes actually below the rates ruling in 1913-14.

Varieties of Piecegoods Imported.

Grey (unbleached).	1913–14 (pre-war year).	1930–31.	1931–32.	1932–33.	1933–34.
	(All in million yards).				
Dhoties, saris and scarves ...	806·1	171·0	83·6	138·8	90·3
Jaconets, madapollams, mulls, etc.	150·4	19·3	23·7	26·8	22·1
Longcloth and shirtings ...	545·4	166·3	133·8	182·8	112·8
Sheetings	·2	4·1	3·7	5·1	2·2
Drills and jeans	21·3	2·4	2·9	1·3	1·6
Other sorts	10·8	1·9	1·7	1·2	1·1
Total	1,534·2	365·0	249·4	356·0	230·1

The reduction has been most marked in grey shirtings and longcloth and this has fallen most heavily upon Japanese qualities, which have felt the incidence of the high import duties. The valuable trade in bordered dhooties showed a decline of 48·3 million yards and this was borne to the extent of 18 million yards by Lancashire and of 30 million yards by Japan. Grey sheetings are now entirely drawn from Japan. In the case of jaconets, madapollams, mulls, etc., the United Kingdom still supplies the whole trade and consequently bore the whole reduction of over 4½ million yards. Japan supplies all the drills and jeans.

White (bleached).	1913–14 (pre-war year).	1930–31.	1931–32.	1932–33.	1933–34.
	(All in million yards).				
Dhooties, saris and scarves...	104·3	15·4	1·9	3·6	6·5
Jaconets, madapollams, mulls, etc.	307·9	135·2	155·2	229·2	137·8
Longcloth and shirtings ...	115·3	71·9	79·8	109·7	75·8
Nainsooks	204·7	25·9	21·5	30·9	17·5
Drills and jeans	5·7	3·8	4·1	4·4	5·3
Checks, spots and stripes ...	16·1	3·7	3·8	7·9	4·4
Twills	8·3	7·7	3·7	11·4	7·0
Other sorts	31·0	8·0	9·7	15·6	7·6
Total	793·3	271·6	279·7	412·7	261·9

Lancashire still supplies virtually the whole of the bleached dhooties, saris and scarves and therefore improved her position to a slight extent. The serious drop of 91½ million yards in jaconets, madapollams, mulls, etc., was largely borne by the United Kingdom. In the case of white mulls, a fall of 90 million yards has been borne by the United Kingdom (83 million yards) and Japan (7 million yards). In white shirtings, etc., the fall of

34 million yards was distributed between the United Kingdom (10 million yards) and Japan (24 million yards). It is noteworthy that, as regards white nainsooks, the United Kingdom share fell by only ¾ million yards, whereas that of Japan dropped by 11 million yards. Japan, however, shipped nearly 11 million yards as compared with the United Kingdom 6½ million yards. Drills and jeans, checks, spots and stripes and bleached twills are still mainly retained by Lancashire.

Coloured, printed or dyed.	1913–14 (pre-war year).	1930–31.	1931–32.	1932–33.	1933–34.
	(All in million yards).				
Dhooties, saris and scarves...	115·2	19·1	8·7	18·2	18·0
Cambrics, etc.	113·6	20·5	19·7	40·6	34·2
Shirtings	152·6	54·7	62·9	115·6	59·6
Prints and chintz	209·7	33·7	23·0	50·5	23·7
Drills and jeans	30·0	33·3	32·9	71·4	53·7
Checks, spots and stripes ...	19·7	12·5	5·1	12·8	13·0
Twills	31·4	16·0	17·8	22·6	14·9
Other sorts	159·6	55·9	53·1	93·1	51·6
Total	831·8	245·7	223·2	424·8	268·7

Imports of woven coloured goods still suffer from the substitution of printed cottons and artificial silk goods while arrivals of prints have been adversely affected by the competition of remarkably cheap Japanese artificial silk taffetas. Continental competition has now been almost eliminated by the high duties.

Sources of Imports.

(1) *Grey Goods.*

Countries of Consignment.	1932–33.		1933–34.	
	Yards.	Rs. (lakhs).	Yards.	Rs. (lakhs).
United Kingdom... ...	111,073,646	1,76	88,200,915	1,35
China	683,430	1	40	—
Japan	243,949,344	3,29	141,553,434	1,70
U.S.A.	259,065	1	258,300	1
Other Countries	54,328	*	100,112	†
Total	356,019,813	5,07	230,112,801	3,06

* Rs. 15,338. † Rs. 18,123

The total may be subdivided between :—

—	1932–33.		1933–34.	
	Yards.	Rs. (lakhs).	Yards.	Rs. (lakhs).
Plain grey goods ...	217,542,762	3,08	139,899,846	1,76
Bordered grey goods ...	138,477,051	1,99	90,212,955	1,30

It will be noted that the fall in the imports from Japan has been particularly heavy, notably in plain grey goods such as longcloth and shirtings. The United Kingdom shipments of bordered dhooties fell from 79 million yards valued at Rs.131 lakhs to 61 million yards valued at Rs.99 lakhs. Arrivals from Japan were reduced in even greater proportion from 59½ million yards (Rs.68 lakhs) to 29 million yards (Rs.31 lakhs). There seems to be little doubt that the imposition of the heavy duty of 75% on Japanese goods in June, 1933, resulted in a considerable decline in Japanese imports. The severity of the decline in purchasing power will be realised when one remembers that as recently as 1929-30 the United Kingdom shipped 443 million yards of bordered dhooties. Much of this trade has gone for ever owing to the competition of Indian made dhooties, but there is still scope for a considerable improvement in the Lancashire dhooty trade when the Indian consumer has money to spend and can afford to gratify his preference for the finer qualities. An improved demand in the Calcutta market is already (June, 1934) apparent.

(2) *Bleached Goods.*

Countries of Consignment.	1932–33.		1933–34.	
	Yards.	Rs. (lakhs).	Yards.	Rs. (lakhs).
United Kingdom... ...	281,005,955	5,27	184,150,449	3,69
Netherlands	2,230,920	6	1,453,492	4
Switzerland	6,491,386	25	612,835	2
Japan	120,354,174	1,62	75,177,481	96
Other Countries	2,661,689	12	522,518	2
Total	412,744,124	7,32	261,916,775	4,73

Although the total imports have receded to below the 1931-32 level, it is satisfactory to note that the steady increase of Japanese shipments has received a definite check as a result of the enhanced duties. In white mulls, which are the staple item of the Lancashire trade, United Kingdom shipments fell from 187 million yards (Rs.294 lakhs) to 104½ million yards (Rs.173 lakhs), whereas those of Japan dropped from 24 million yards (Rs.30 lakhs) to 17 million yards (Rs.20 lakhs). White shirtings were drawn from the United Kingdom, 31 million yards (Rs.71 lakhs) and Japan, 43½ million yards (Rs.60 lakhs). Japan shipped 11 million yards (Rs.10 lakhs) of bleached nainsooks and the United Kingdom 6 million yards (Rs.9 lakhs). The remaining items were drawn from the United Kingdom. The fall in arrivals from Switzerland and the Netherlands has been remarkable and is directly attributable to the high duties. It is satisfactory to record that the demand for staple Lancashire qualities of nainsooks, shirtings and mulls has been on an improved scale for next November-December-January shipment

and business has been booked in many qualities which have been off the market for years. There is much leeway to be made up before the United Kingdom shipments of bleached goods attain their 1928-29 level of 525 million yards valued at Rs.14,23 lakhs.

(3) *Coloured, Printed or Dyed Goods.*—The heading is made up as follows :—

Description.	1932–33.		1933–34.	
	Yards.	Rs. (lakhs).	Yards.	Rs. (lakhs).
Printed Goods	236,943,105	3,97	140,246,680	2,33
Dyed Goods	147,732,725	3,37	102,574,282	2,30
Woven coloured Goods ...	40,120,105	1,00	25,890,482	62
Total Imports ...	424,795,935	8,34	268,711,444	5,25

The provenance of the imports was as follows :—

Countries of Consignment.	1932–33.		1933–34.	
	Yards.	Rs. (lakhs).	Yards.	Rs. (lakhs).
United Kingdom... ...	194,326,118	4,88	142,400,273	3,54
Germany	587,113	5	46,562	*
Netherlands	2,544,398	8	184,644	1
Belgium	232,266	1	35,951	†
Switzerland	3,320,963	14	88,223	1
Italy	7,197,129	19	407,256	1
Straits Settlements ...	238,014	1	894,102	1
Japan	214,225,744	2,92	124,074,370	1,65
Other Countries ...	2,124,190	6	580,063	2
Total	424,795,935	8,34	268,711,444	5,25

* Rs. 32,605 † Rs. 24,513

The most striking feature of the returns is the almost complete elimination of the Continent owing to the high duties on foreign goods. Italian competition had hitherto been keen in dyed goods, notably dyed twills, Italian cloth and sateens and unspecified descriptions. Holland also formerly competed in printed lungis, woven lungis and sarongs and dyed shirtings. Swiss imports were mainly dyed and embroidered cambrics and muslins. As a result of the new textile tariff, in which the standard rates on sateens, velvets and velveteens and embroidered all-overs are now reduced to 35%, the Continent will probably regain a certain proportion of the lost trade.

The following table shows where the principal reductions occurred in Japanese goods :—

From Japan.	1932-33. *Yards.*	1933-34. *Yards.*
Printed drills and jeans	46,579,181	39,173,855
Prints and chintz	18,366,503	6,534,703
Printed flannelettes	9,212,421	1,413,046
Printed shirtings	58,701,178	28,617,746
Dyed drills and jeans	8,107,996	6,225,992
Dyed flannelettes	7,828,910	1,386,299
Dyed shirtings	15,385,596	8,125,493
Dyed twills	4,935,917	3,282,130
Coloured woven drills and jeans ...	6,161,525	1,880,889
Coloured lungis and sarongs	6,733,736	5,922,602
Coloured shirtings	4,005,002	1,516,098
Coloured velvets and velveteens ...	2,520,410	2,200,942

(4) *Fents of all descriptions.*—There has been a falling-off from Rs.52 lakhs to Rs.45 lakhs in the past year, which compares with a maximum importation of Rs.94 lakhs' worth in 1927-28. The trade is divided as follows :—

Description.	1932-33. *Yards.*	1933-34. *Yards.*
Fents of not more than 9 yds. in length	28,667,511	34,191,576
Others	3,051,279	786,123

The provenance of the imports was as follows :—

Countries of Consignment.	1932-33.		1933-34.	
	Yards.	Rs. (lakhs.)	Yards.	Rs. (lakhs).
United Kingdom... ...	10,713,179	19	11,080,915	17
Japan	1,205,599	2	8,191,500	12
U.S.A.	19,404,640	30	15,552,890	16
Other Countries ...	395,372	1	152,394	*
Total	31,718,790	52	34,977,699	45

* Rs. 45,327

It is noteworthy that the yardage is only 2 million yards below the pre-war average of 37 million yards. Prices of both United Kingdom and U.S.A. fents slumped heavily during the year in order to meet the growing competition from Japan. By the terms of the Indian Tariff (Textile Protection) Amendment Act of 1934, fents not exceeding 4 yards in length being " bona fide " remnants of piecegoods or other fabrics are assessed at 35% standard and 25% preferential.

Shares of the Principal Competitors in the Total Quantities of Piecegoods Imported.

Countries of Consignment.	1913–14.	1929–30.	1930–31.	1931–32.	1932–33.	1933–34.
	%	%	%	%	%	%
United Kingdom	97·1	65·0	58·8	49·4	48·7	52·2
Japan	0·3	29·3	36·1	43·8	47·3	43·8
U.S.A.	0·3	1·7	1·0	2·5	1·7	2·0
Netherlands ...	0·8	1·1	1·5	0·9	0·4	0·2
Other Countries...	1·5	2·9	2·6	3·4	1·9	1·8
Total ...	100·0	100·0	100·0	100·0	100·0	100·0

Indian Mill Competition.—The subjoined detailed statement gives the quantities (in pounds and their equivalent in yards) and descriptions of the woven goods produced in Indian Mills during the past three years :—

Twelve Months, April to March.

Description.		1931–32.	1932–33.	1933–34.
GREY AND BLEACHED PIECEGOODS—				
Chadars	pounds	21,165,097	21,806,961	21,086,637
	yards	55,726,035	58,627,103	56,153,643
Dhooties	pounds	188,313,977	210,157,183	188,119,039
	yards	964,540,251	1,096,807,246	978,529,398
Drills and jeans ...	pounds	26,241,466	28,281,001	26,504,561
	yards	103,233,003	112,947,058	104,268,967
Cambrics and lawns ...	pounds	5,806,486	9,038,773	10,429,043
	yards	43,322,303	67,375,107	77,614,418
Printers	pounds	4,462,874	2,496,990	3,499,172
	yards	21,959,280	13,657,568	18,392,893
Shirtings and longcloth	pounds	176,257,232	165,152,344	161,962,285
	yards	790,914,032	748,049,755	725,784,338
T-cloth, domestics, and sheetings	pounds	42,505,026	39,583,061	36,683,596
	yards	154,407,630	143,691,596	136,957,922
Tent-cloth	pounds	2,073,519	2,854,127	2,189,311
	yards	4,897,969	6,668,530	5,204,211
Khadi, Dungri or Khaddar	pounds	41,570,813	39,544,668	30,673,107
	yards	119,520,969	115,499,449	91,290,424
Other sorts	pounds	11,619,714	12,876,418	14,684,044
	yards	52,582,993	59,674,092	70,798,685
TOTAL	pounds	520,016,204	531,791,526	495,794,794
	yards	2,311,104,465	2,422,997,504	2,264,994,899
COLOURED PIECE-GOODS...	pounds	138,621,286	150,723,944	137,610,496
	yards	678,786,696	746,901,445	680,056,828
GREY AND COLOURED GOODS, OTHER THAN PIECE-GOODS	pounds	3,237,696	3,542,296	3,391,961
	dozens	831,344	946,971	841,758
HOSIERY	pounds	1,974,815	2,544,339	2,193,217
	dozens	622,659	746,341	667,600
MISCELLANEOUS	pounds	5,362,410	4,291,948	4,863,953
COTTON GOODS MIXED WITH SILK OR WOOL	,,	3,045,221	2,007,004	1,859,114
GRAND TOTAL ...	pounds	672,257,632	694,901,057	645,713,715
	yards	2,989,891,161	3,169,898,949	2,945,051,727
	dozens	1,454,003	1,693,312	1,509,358

The reduction by nearly 225 million yards to a figure below the 1931-32 output shows that the intensity of the depression and the low consuming capacity of the people affected the consumption even of the cheapest, country-made cloth. The reduction in production was most pronounced in dhooties (118 million yards), coloured piecegoods (67 million yards), khaddar cloth (24 million yards), shirtings and longcloth (22 million yards) and drills and jeans (9 million yards). On the other hand, there were increases under the heads of miscellaneous grey and white piecegoods (11 million yards), printers (5 million yards), cambrics and lawns (10 million yards) and unspecified goods (400,000 lbs.). There is, once again, very little evidence of diversification of production on any extensive scale. The Ahmedabad and up-country mills are producing increasing quantities of the finer cloths made from imported Uganda, Kenya and Egyptian cotton, but the bulk production in India is still of the few standard qualities of grey and coloured woven goods, which, during times of depression such as the present, tend to pile up in unwieldy stocks, which unduly depress market prices.

The Committee of the Bombay Millowners' Association in their Report for 1933 review the year as follows :—

> " The uncertainty of-the cotton market was naturally reflected in the yarn and cloth markets, but the main factor which adversely affected both yarn and cloth was the low purchasing power of the masses who have suffered from successive crop failures coupled with low prices. In spite of the fact that a considerable portion of the local textile industry was closed down entirely or worked short time during the year, neither the offtake nor the prices paid for mill products were satisfactory. The industry was again compelled to seek aid from Government as it was impossible to withstand Japanese competition owing to the depreciated value of the yen. Government, however, were slow to move, and it was only in June that they levied additional duties on piecegoods not of British manufacture. In the meantime, Japanese shippers are reported to have sold considerable quantities to Indian importers on the terms that any increase in duty over 50% would be paid by the Japanese shippers. The delay of Government in coming to a decision led to steady deterioration, and the number of looms and spindles idle in Bombay City and Island increased from 6 and 14% respectively, at the end of 1932, to 31 and 37% by the end of May, 1933. In spite of the continued curtailment of production, stocks continued to increase, and reached a total of 163,000 bales of cloth by the end of May. Stocks at Ahmedabad and other centres were also heavy at the time. Consequent on the rise in cotton prices following the passing of the National Industrial Recovery Act by the Senate of the United States of America, speculative demand arose from merchants, and mills' order books showed some improvement, though prices still continued unremunerative, as the rise in cotton prices was considerably greater than the rise in yarn and cloth prices. Owing, however, to the very poor offtake by consuming centres, and also owing to the subsequent fall in cotton prices, this speculative demand dwindled down, and mills found increasing difficulties in effecting sales. ' Diwali,' when sales are normally brisk, showed merchants in a very disheartened mood, and ' Moorat ' sales were the lowest for many years past, the estimated sales being only about 20,000 bales of piecegoods. The demand continued to be poor, and by the end of the year a little over a third of the productive machinery of Bombay Mills was lying idle.

"With Broach round Rs.200 in the beginning of the year, calendered shirtings were quoted at 10 annas a pound. With poor demand, prices continued to decline, and by the end of April sales were made as low as 9¼ annas a pound. With the speculative demand that set in in May and June, prices rose again to 10 annas a pound, but cotton had by then risen to Rs.216, and mills were thus worse off by about half an anna per pound than at the beginning of the year. With the decline in demand and offtake, prices fell again and closed at the end of the year round 9 annas a pound with both demand and offtake poor. In the meantime a few forced sales were even reported to have been effected at the very low price of 8¾ annas a pound.

"The picture presented above makes it clear that in 1933 the textile industry of the country passed through another year of acute depression. The mills in Bombay which had already been hard hit were hardly able to weather the storm, and mill after mill had to be taken into liquidation. Even in up-country centres, enjoying all the advantages of cheaper cotton, cheaper labour, less local taxation, and nearness to the consuming centres, the industry on the whole did worse than in previous years. The best indication of the slump in the industrial world was a phenomenal rise during the year in the price of Government securities. It is devoutly to be hoped that the industry will not have to face another year like 1933. After all these years of intense depression and sufferings, echoes, however distant, can be heard of a revival of trade. Prosperity may not be near at hand, but there are indications that an improvement in world conditions has set in, and it may reasonably be expected that the textile industry of this country will share in the general revival."

Cloth Consumption in India.—The following table, compiled by the Director-General of Commercial Intelligence, gives a rough estimate of the quantity of mill-made cloth which was available for consumption in India during the year 1933-34 and during the past four years. The Director-General states that owing to the existence of numerous markets and scattered demands, it is not possible in this table to take stocks into consideration.

	1913–14 (pre-war year).	1929–30.	1930–31.	1931–32.	1932–33.	1933–34.
	Million yds.	Million yds.	Million yds.	Million yds.	Million yds.	Million yds.
Indian mill production.	1,164·3	2,419·0	2,561·1	2,989·9	3,169·9	2,945·0
Imported goods	3,197·1	1,919·3	890·0	775·6	1,225·3	795·7
TOTAL PRODUCTION AND IMPORTS.	4,361·4	4,338·3	3,451·1	3,765·5	4,395·2	3,740·7
Exported, Indian	89·2	133·4	97·7	104·6	66·4	56·4
„ Foreign	62·1	22·2	17·4	15·7	21·6	24·8
TOTAL EXPORTS...	151·3	155·6	115·1	120·3	88·0	81·2
BALANCE AVAILABLE.	4,210·1	4,182·7	3,336·0	3,645·2	4,307·2	3,659·5

It will be observed that in 1933-34 the Indian mills produced 80% and imports provided only 20% of the available balance for consumption. Of this 20%, the United Kingdom supplied just over one-half (53%) or approximately 10% of the cloth consumed in the country as compared with over 70% in 1913-14.

Conditions in the Large Import Markets.—I am indebted to a leading Authority in the piecegoods trade for the following summary of conditions in the four large import markets :—

Calcutta.

"The excessive speculative trading in Japanese goods during 1932, with price cutting tactics going on the whole time, coupled with the poor offtake from the local market, resulted in the year ending with large stocks in dealers' hands on which they were losing heavily. 1933 therefore started most inauspiciously and business was very difficult to negotiate.

In June when increased duties on Japanese goods came into force it was expected that dealers would regain some of the heavy losses made on their stocks earlier on. Bazaar prices however responded hardly at all but on the other hand the new duties restricted forward business and the statistical position as far as stocks were concerned improved materially.

On the whole the increased duties were welcomed in the bazaar as dealers felt that they would again be able to turn their attentions to Lancashire goods in which trading has all along remained on a more sound basis and in which buyers feel they have a reasonable chance of making profits, as against continued and almost certain losses in Japanese goods.

These increased duties without doubt, for a brief period, helped business in Lancashire goods but all hopes that a steady trade would once again materialise were soon dashed to the ground and towards the year end business was again entirely dislocated by the prolonged negotiations in Delhi and the uncertainty regarding the duty on Japanese goods. This uncertainty prevailed right up to the year end so that the volume of business put through during that period was most disappointing.

Although during the whole year the offtake was poor it was always in excess of imports with the result that by the end of December stocks in both Lancashire and Japanese goods were definitely light.

One bright feature of the year is that whereas Japanese imports compared to 1932 were considerably reduced those from Lancashire improved slightly.

Although Liverpool cotton fluctuated considerably during this period it finished up at the year end on about the same level as at the start. These fluctuations had unusually little effect on bazaar prices owing to the poor offtake. At the advance buyers were reluctant to increase prices and during a decline they became merely more pessimistic.

Although four months have now elapsed since the quota system was introduced nothing definite is yet known as to how it will work and individual shippers quotas in Japan have only last week been allotted. It is therefore impossible to forecast what its actual effect will be. With light stocks in the market however prospects should be brighter. The Anti-British feeling has now almost entirely disappeared and the question as to whom the future trade will go to will be mainly a matter of price. All the same Lancashire goods at the same level of price would be given preference owing to the fact that dealers when making

purchases of goods from this source can rely on importers to safeguard their interests and not disclose particulars of price. In Japanese and Indian Mill goods immediately sales are made in the bazaar full particulars of such sales are known to everyone and the resultant cut-throat competition almost always means losses to stock holders. It therefore remains to Lancashire to bring her prices into line with others when we feel confident she would gradually again build up a leading position in the Indian trade."

Bombay.

"1933.—The year opened with a quiet market and heavy stocks, mostly of high priced goods brought forward from the previous year. Stocks of Japanese goods were particularly heavy.

During the earlier part of 1933 the news published in the press to the effect that Government intended to place the Anti-Dumping Bill before the Central Legislature renewed the hopes of dealers of an improvement in trade in Lancashire and local piecegoods. Later on rumours were current that duties on Japanese piecegoods would be increased which brought out speculative buyers and prices of standard Japanese cloths appreciated by about 6 per cent. The uncertainty, however, regarding duties generally kept buyers out of the market and they preferred not to commit themselves to forward purchases of any magnitude until the tariff question was definitely settled.

Local goods on account of the accumulation of stocks and restrictions of credits were depressed and some of the Mills had to close down in view of the quiet state of the local market.

During June replacing prices both in Manchester and Japan advanced considerably in sympathy with the rise in the raw article. Additional duties of 25% imposed in that month on non-British goods resulted in a fairly brisk activity in inter-bazaar transactions of Lancashire goods. Bazaar prices in Japanese articles also advanced by 7 to 10%. Sales amounting to 80,000 bales were effected in local goods.

On account of the arrest of Mahatma Gandhi in August the market was again disorganised for a short time. Picketing restarted but Congress activities to dissuade buyers from dealing in foreign cloths had little effect this time as buyers, having become wiser by their past experience, took very little notice of them. During the third week of August heavy rains caused floods in Gujerat and Kathiawar districts which dislocated communications, and trade for these districts was practically at a standstill for about three weeks.

The failure of the Currimbhoy Group in October last disorganised the market for some time and a few dealers had to suspend payment.

The arrival of the Lancashire and Japanese Trade Delegations in India and their prolonged discussions kept the market in an uncertain state. Rumours of reduction in Japanese and Lancashire duties were current in the market, and Japanese goods continued to move well in fair lots for outports.

In December, on account of rumours of lower duties on Japanese piecegoods, dealers were free sellers, and fair quantities changed hands, bazaar prices having declined by about 8%. During this period little attention was paid to Lancashire goods.

The disastrous earthquake in Bihar was another factor which had a depressing effect on our market, as most of the purchases intended for the affected areas were resold in Bombay, often at lower prices.

1934.—The reduction in duties of Japanese cotton piecegoods to 50% coupled with the new Quota System had the effect of generally lowering bazaar prices of all imported goods by about 5%. The rumours

that subsequent to the reduction of duties on Japanese goods, the 5% surcharge on Lancashire goods would be removed in the new Tariff Bill, caused further uncertainty which restricted the free movement of arrivals of piecegoods.

The present tone of the market is steady; stocks in Bombay and up-country markets are moderate and buyers are making small returns on their purchases. The future mainly depends on the trend of cotton prices, but, as Japan is not likely to be in a position to dump large quantities of piecegoods in Indian ports and as the Indian textile industry cannot as yet compete in Lancashire's specialities, the prospects for Lancashire goods are on the whole somewhat brighter.

Madras.

1933.—The continued depression and low prices ruling for raw products during the year were keenly felt in the Presidency and the purchasing power in consequence was low.

Rumours and discussions during 1932 of further protection against non-British goods encouraged dumping by Japanese importers whose goods began to arrive in bulk during the last few months of 1932. A healthy demand early in 1932 resulted in abnormally large imports from Great Britain and the Continent also. The total imports of piecegoods into Madras during 1932 amounted to over 50,000 packages against an average yearly total of under 40,000 packages.

The effect of this overtrading was not seriously felt until January, 1933. Up till then dealers had been able to maintain prices at a remunerative level and the offtake had generally been fair. From then onwards however the Home markets began to decline and continued so until May. Local prices however were quicker on the drop and by May the margin of profit which they had been showing over replacing cost prices had dwindled to nothing and in many cases to a loss below replacing costs.

During May, June and early July prices were steady with a moderate demand for the "Onam" festival. This "Onam" demand was, however, disappointing as compared with previous years. The "Diwali" demand during October-November was also poor and local prices from July to the end of the year were weak and barely maintained the May-June level.

During the whole of 1933 the volume of business done can be considered as a normal year's trading. For the last nine months little if any profit accrued to dealers.

Yarns 1933.—The above conditions apply as much to yarns as to piecegoods with small additions.

The increasing imports into Burma, Ceylon and the Straits of cheap Japanese loonghies hit the local handloom industry badly and curtailed the demand for 40's and 60's yarns. Fine yarns moved fairly well throughout the year and dealers in general made fair trading profits.

January-April, 1934.—During the whole of this period stocks have been light and in January there seemed to be some promise of improved local prices and better demand generally. From February onwards the uncertainty and speculation regarding the probable new rates of duties which would be imposed this year dislocated trade and deterred dealers from entering into contracts of any magnitude. So much was this so, that in March and April dealers would only offer for ready goods in importers godowns at about 5% discount in anticipation of an equivalent reduction in import duty.

For the last three months practically every package of piecegoods and yarns arriving in Madras has been bonded and only sufficient to meet the immediate small demand has been released. The natural

result has been that stocks in the bazaars, both Madras and upcountry, are negligible whereas importers' stocks are heavy, though not seriously so."

Karachi.

" 1933-34.—As a result of overtrading in 1932 the beginning of the year under review showed abnormally heavy stocks upon which the dealers were losing heavily. The stocks of Japanese goods at the time were particularly heavy—in fact disproportionate to the business done (this is accounted for by the " dumping " which took place in 1932)—and the losses on these were even heavier than those of Lancashire goods and many buyers both in Karachi and upcountry were forced to suspend payment. The increase in the duty on Japanese cotton piecegoods in June whilst having checked imports to a certain extent did not help holders of ready goods as bazaar prices appreciated only to a small extent.

As a result of the heavy stocks referred to above, dealers were very discouraged and the business done in the succeeding months was only small and for one or two months no business was booked at all. This, of course, helped the liquidation of stocks, but the total imports during 1933 were very much reduced and they only amounted to 108,450 packages (of which 30,529 packages were Japanese) as against 168,339 packages in 1932 (of which Japanese were 52,774 packages).

The reduction in the duty on Japanese cotton piecegoods early this year following the fixing of the quota created a certain amount of nervousness, but dealers soon realised that the percentage of the quota allotted to Whites was sufficiently small not to interfere with their trade in Lancashire Whites which is one of Karachi's staple lines of imports.

The fixation of the quota was followed by rumours that the duty on Lancashire goods would be reduced to 20%, but so far nothing has materialised in this direction. Many rumours are still current as regards Customs duty and the uncertainty which exists is most unfortunate as the rumours tend to restrict the free movement of fresh arrivals owing to dealers bonding their goods, besides which they prejudice the chances of forward business. The quicker Government make up their minds the better for the trade in general.

The present position of the market generally is quite healthy, stocks are light and prospects therefore are encouraging."

General Forecast (June, 1934).—Now that a limit has been set, by the Indo-Japanese Treaty, to the expansion of Japanese supplies and the quota, by categories of goods, has been fixed, and now that the fiscal treatment of both United Kingdom and foreign goods has been settled by the terms of the Indian Tariff (Textile Protection) Amendment Act, 1934, it is to be hoped that the market will settle down to a period of more steady trading free from all the speculations and fears that have been such a handicap during the past year.

Stocks of Lancashire goods are at a very low ebb and dealers are showing indications of a desire to revert to their old suppliers, whose methods of business they understand, and who may be relied upon not to flood the market with goods at lower and lower prices, thereby completely dislocating the price level and rendering the business profitless for the distributor. It is likely that the

distribution of the controlled quantities of Japanese fabrics will, in future, be mainly in the hands of the half-dozen principal Japanese Houses in India and we may see a reversion on the part of the Indian importers in the bazaars to their Manchester friends. During the month of May, 1934, there were distinct signs of some revival in Lancashire goods. Orders were placed in Calcutta for qualities of dhooties and white nainsooks which had been off the market for years and a moderate volume of forward business for November/December/January shipment was transacted. This would have been much greater but for the stiffening of Lancashire quotations as a result of efforts to improve margins.

The stage is set for a moderate revival so soon as Indian purchasing power begins to rise. Although Indian mill competition is cutting into the market in an ever-widening range of fabrics, the Indian mills cannot as yet provide the variety of qualities, designs, colours and styles which consumers like to have if only they can afford to pay for them. In times of intense agricultural and industrial depression such as the past four years, the Indian consumer has been obliged to substitute the cheaper, coarser, less attractive fabric made in India for the finer imported article which he has been in the habit of purchasing. It is not too much to expect that, as the prices of primary commodities rise thereby releasing purchasing power, we shall see a broadening of the demand for Lancashire staples of the finer qualities and for fancy styles. It is doubtful whether the trade will ever attain the volume of the pre-slump year of 1929-30 (roundly 1,500 million yards of United Kingdom goods), but there is no doubt that the present volume of less than 600 million yards is abnormally low. Given a spell of economic prosperity in India with settled political conditions and no attempt to penalise United Kingdom goods by prohibitive import duties, we may easily see United Kingdom shipments rise to one thousand million yards within a very few years.

Raw Cotton.—The following statement, taken from the Indian Trade Journal, compares the estimates of the total out-turn of cotton in India for the last two years with the sum of exports and internal consumption. The figures are those compiled by the Indian Central Cotton Committee and refer in the case of mills in British provinces to Indian cotton alone. The estimate of mill consumption in Indian States refers to all cotton, but it has been ascertained from the Indian Central Cotton Committee that the amount of foreign cotton consumed in Indian States is negligible. Import figures have not, therefore, been taken into consideration for the purposes of the comparison set forth below. A conventional estimate has, as usual, been made for extra factory or local consumption. It should be borne in mind that estimates of " carry-over " from one year to another have not been taken into account owing to complete information not being available regarding stocks.*

* Stocks of cotton in Bombay were 698,000 bales on 31st August, 1932, and 719,000 bales on 31st August, 1933.

	Year Ending 31st August.	
	1933.	1932.
	Thousand bales (400 lbs.)	Thousand bales (400 lbs.)
Exports to United Kingdom	242	125
„ to Continent (Europe, excluding United Kingdom).	862	424
„ to China	169	243
„ to Japan	1,426	757
„ to Other Countries	42	33
Total	2,741	1,582
Home Consumption :—		
Mills†	2,360	2,346
Extra—factory or local‡	750	750
Total	3,110	3,096
Approximate crop	5,851	4,678
Estimated in forecast	4,656	4,007
Excess (+) or deficit (—) neglecting carry-over ...	+1,195	+671

† The figure of mill consumption is that compiled by the Indian Central Cotton Committee, Bombay, mainly on the basis of returns made under the Indian Cotton Cess Act.

‡ Conventional estimate.

Indian Cotton to Lancashire.—The following table proves conclusively that the efforts which have been made by the Lancashire Indian Cotton Committee to promote the greater use of Indian cotton in Lancashire Mills are bearing abundant fruit. The figures show the exports of Indian cotton from Indian ports to the United Kingdom during the first seven months (September to March) of the Cotton Season, 1933-34 :—

	1933-34.	1932-33.
	Bales.	*Bales.*
From Bombay	50,738	27,795
From Karachi	131,629	63,045
From Calcutta	3,360	3,338
From Kathiawar	1,371	52
From Tuticorin	9,669	260
From Madras	6,776	5,418
Total	203,543	99,908

The next statement shows the stocks of cotton held by Indian Mills on the 1st August, 1933, and the 1st February, 1934 (in bales regardless of weight), and is published by the Bombay Millowners' Association :—

	Bombay City and Island.		All-India.	
	1.8.33.	1.2.34.	1.8.33.	1.2.34.
COTTON MILL STOCKS. (In actual bales regardless of weight).—				
(*a*) American (Linters and waste not included).	26,377	15,373	30,919	19,058
(*b*) East India	154,698	128,796	891,092	800,755
(*c*) Egyptian	2,405	2,792	8,685	9,935
(*d*) Sundries	18,697	12,605	47,295	36,741
Total	202,177	159,566	977,991	866,489

Figures from the Cotton Census taken at the request of the International Federation of Master Cotton Spinners' and Manufacturers' Associations. (Figures are approximations.)

The subjoined table gives the imports of raw cotton into India during the past two years :—

Countries of Consignment.	1932–33.		1933–34.	
	Tons.	Rs. (lakhs).	Tons.	Rs. (lakhs).
United Kingdom	609	5	4	*
Persia	883	4	874	4
Egypt	9,135	78	6,068	53
Kenya Colony	20,694	1,78	24,188	2,02
Tanganyika Territory	943	8	2,589	23
Anglo-Egyptian Sudan	6,447	66	871	7
U.S.A.	45,791	3,84	8,126	64
Other Countries	256	2	131	2
Total	84,758	7,25	42,851	3,55

* Rs. 4,418.

The heavy reduction in the imports of U.S.A. cotton resulted from the considerable margin which existed for most of the year between the price level of U.S.A. and Indian cotton. While the passage of the Farm Relief Bill and the U.S.A. Government's reimposition of the embargo on gold exports coupled with acreage reduction plans and other measures to raise prices, brought about an increase in U.S.A. rates, the threat of, and later, active boycott, of Indian cotton by Japan depressed the market for the Indian

staple with the result that Oomras were quoted at a discount of Rs.25 instead of the usual difference of about Rs.15 despite the fact that the Oomra crop was smaller than usual. The reduction in the imports of U.S.A. cotton via Liverpool is due to direct shipment from the Southern States. Re-exports of raw cotton to all markets did not exceed Rs.6 lakhs in value, so that the heavy imports of Uganda and Kenya cotton were retained for mill consumption.

Cotton Sewing Thread.—The imports were as follows :—

Countries of Origin.	1932–33.		1933–34.	
	lbs.	Rs. (lakhs).	lbs.	Rs. (lakhs).
United Kingdom... ...	1,793,707	49	1,628,630	44½
Other Countries	279,226	7	240,818	6
Total Imports ...	2,072,933	56	1,869,448	50½

Although there has been a setback during the past year, the trade has been remarkably well maintained during the slump, the aggregate imports for 1929-30 being 2,402,078 lbs. valued at Rs.81 lakhs. Even the 1933-34 figures are far in excess of the pre-war average of 1,598,000 lbs. In 1933-34 the United Kingdom supplied 87%, Holland 8% and Austria 3%. Small quantities were drawn from Belgium and France. Sewing cotton is now assessed to import duty as follows :—

Counts above 50's—
of British manufacture, 5%.
of non-British manufacture, 6¼%.

50's and below—
of British manufacture, 5% or 1¼ annas per lb. whichever is higher.
of non-British manufacture, 6¼% or 1⅞ annas per lb. whichever is the higher.

There is no direct competition from Indian mills in sewing cotton as such, but a certain amount of yarn, imported in the hank, is then re-wound on reels in Bombay and sold as sewing cotton.

Artificial Silk Yarns.—The improvement recorded in last year's report has not been maintained and the total imports receded from 11 million lbs., valued at Rs.92½ lakhs to 9·8 million lbs. valued at Rs.82 lakhs. This is due to a falling-off in the takings by the Madras handloom weavers of no less than 949,000 lbs. The mill industry in Bombay and Ahmedabad also reduced its consumption by 429,000 lbs. The import duty on artificial silk yarn was raised from the 1st May, 1934, from 18¾% to 25% or 3 annas per lb. which-

ever is higher, no preference being granted to the British product. The imports were :—

Countries of Consignment.	1932-33.		1933-34.	
	lbs.	Rs. (lakhs).	lbs.	Rs. (lakhs).
United Kingdom... ...	1,656,450	14	1,589,132	13
Germany	406,343	3	500,726	4
Netherlands	847,160	7	214,170	2
France	360,129	3	514,638	4
Switzerland	67,816	1	37,376	*
Italy	5,608,756	48	4,286,717	38
Japan	1,798,903	14	2,542,319	20
Other Countries ...	256,536	2	123,841	1
Total	11,002,093	92	9,808,919	82

* Rs. 24,404.

Although Japan only entered the market in 1931-32, she is rapidly displacing Italy and Holland and is competing seriously with United Kingdom yarns. The average value of the Japanese imports was Rs.0·78 per lb. and that of the shipments from the United Kingdom Rs.0·81 per lb.

Piecegoods made entirely of Artificial Silk.—The high import duty of 50% or four annas per square yard, whichever is higher, has had the effect of reducing the imports from Japan to less than half the value and only one-third of the yardage imported in 1932-33. The new protective rates of duty are still 50% or four annas per square yard on all foreign goods and 30% or 2½ annas per square yard on goods of British manufacture. The average declared values per yard was as low as 3 annas 11 pies in 1932-33.

Principal Countries of Consignment.	1932-33.		1933-34.	
	Yards.	Rs. (lakhs).	Yards.	Rs. (lakhs).
United Kingdom... ...	429,883	4	431,324	3
Germany	4,806	*	40,277	†
Italy	128,027	1	80,610	1
Japan	111,703,459	2,46	39,631,289	1,03
Other Countries ...	553,106	2	214,128	1
Total	112,819,281	2,53	40,397,628	1,08

* Rs. 7,946. † Rs. 35,038.

Piecegoods of Cotton and Artificial Silk.—The relatively high duties on all-artificial silk goods has brought about a transference of Japanese trade to mixture cloths, which—during the year under

review—were subject to an import duty of 35% or 2¼ annas per square yard, whichever is higher. The figures were :—

Principal Countries of Consignment.	1932–33.		1933–34.	
	Yards.	Rs. (lakhs).	Yards.	Rs. (lakhs.)
United Kingdom... ...	3,147,986	14	2,302,040	11
Germany	318,781	8	81,572	1
Switzerland	987,119	4	157,200	1
Italy	4,377,159	21	3,021,436	14
Austria	626,216	3	10,266	*
Japan	2,797,854	6	8,595,798	21
Other Countries ...	182,637	1	86,549	1
Total	12,437,752	57	14,254,861	49

* Rs. 6,391

The position of the leading suppliers may be changed in future since, from the 1st May, 1934, the following revised duties on artificial silk and cotton mixtures were brought into force :—

(I) Mixture cloths containing 50% or more cotton :—

(*a*) of British Manufacture, 30% or 2 annas per square yard, whichever is higher.

(*b*) not of British Manufacture, 50% or 3½ annas per square yard, whichever is higher.

(II) Mixture cloths containing no cotton or containing less than 50% cotton :—

(*a*) of British Manufacture, 30% or 2½ annas per square yard, whichever is the higher.

(*b*) not of British Manufacture, 50% or 4 annas per square yard whichever is higher.

Flax Manufactures.—The main types imported were :—

Description.	1932/33. *Rs. (lakhs).*	1933/34. *Rs. (lakhs).*
Twist and yarn	*	†
Canvas	8	8·5
Piecegoods	2·5	2
Sewing Thread	2	2
Other sorts, including bags and sacks ...	4·5	4·5
Total imports	17	17

* Rs.11,552. † Rs.4,311.

Details of the provenance of the imports are not yet available. In 1932-33 the United Kingdom supplied 95% of the total trade, the balance including Rs.7,357 worth of sewing thread from Austria, Rs.17,000 worth of miscellaneous flax manufactures from Japan and Rs.14,000 worth from Czechoslovakia.

Jute Manufactures.—This heading mainly consists of second-hand gunny bags re-exported from Australia and transhipped via Ceylon. There has been a decline during the year in the total trade. The figures are :—

Countries of Consignment.	1932/33. *Rs. (lakhs).*	1933/34. *Rs. (lakhs).*
United Kingdom	2	1·5
Ceylon	9	7·5
Other countries	2	1
Total imports	13	10

In 1932-33 the United Kingdom supplied practically the whole of the Rs.31,459 worth of jute canvas and the Rs.91,000 worth of gunny cloth and over 50% of the Rs.30,604 of rope and twine imported, small quantities of the latter being drawn from Italy. Ceylon provided almost the whole of the gunny bags. Miscellaneous jute fabrics to the value of Rs.2¾ lakhs were drawn from the Straits Settlements (Rs.61,000), Japan (Rs.1½ lakhs) and the United Kingdom (Rs.53,000). The entry of the products of the Japanese jute industry is significant and presages increased competition, both with Dundee and Calcutta, in the future.

Silk Manufactures.—After an improvement last year, the total trade receded on account of heavily reduced imports of raw silk and silk yarns, noils and warps. The imports of silk piecegoods and mixtures, however, showed an encouraging improvement as a result of heavier imports from Japan despite the high import duties. The imports of the various types were :—

Description.	1932/33. *Rs. (lakhs).*	1933/34. *Rs. (lakhs).*
Raw silk	1,17	72
Silk yarns, noils and warps	88	46
Goods of silk mixed with other materials	43	55
Silk piecegoods	1,81	1,82
Sewing thread	1	1
Total imports of all kinds ...	4,33	3,58

China again supplied virtually the whole of the raw silk but imports from Japan rose from Rs.4¾ to Rs.6½ lakhs. Of the yarns, noils and warps, Japan sent 46%, China 31%, Italy 11% and the United Kingdom 9%. Silk mixtures were drawn from Japan (74%), Germany (5%), the United Kingdom (3%) and unspecified countries provided the remainder. The Japanese increased their hold on the silk piecegoods trade, their share rising from 73 to 80%, whereas that of China dwindled from 25 to 17%, the United Kingdom share being a trifling Rs.68,000 worth. Miscellaneous silk goods were provided by the United States, Japan, China and the United Kingdom.

Woollen Manufactures.—The various types imported were :—

Description.	1932/33. *Rs. (lakhs).*	1933/34. *Rs. (lakhs).*
Worsted yarn for weaving	15	12
Knitting wool	18	14
Blankets and rugs (other than floor rugs)	34	40
Braids	*	†
Carpets and floor rugs	4	2
Hosiery	7	9
Piecegoods	1,61	1,30
Shawls	11	9
Total imports of all kinds	2,54	2,21

* Rs.43,390. † Rs.28,372.

In 1932-33, of the worsted yarn imported, the United Kingdom supplied 14%, the principal competitors being Poland (39%), France (25%) with lesser quantities from Germany and Japan. Japan entered the market for the first time with Rs.82,000 worth. Of the knitting wool, the United Kingdom shipped 34%, Germany 25%, France 16% and Japan 15%. Here again, Japan entered the market for the first time with the substantial quantity of 187,516 lbs. valued at Rs2¾ lakhs. The Ottawa preference enabled the United Kingdom to secure a larger share of the trade at the expense of the Continent. Blankets and rugs were contributed by Italy (92%), Germany (2½%) and the United Kingdom (2½%). Italy recovered her share after the material reduction last year. Germany supplied over 50% of the braids imported.

Woollen Piecegoods.—The trade suffered a setback in 1933-34, which shows that the greatly enhanced imports in the previous year failed to go into consumption. The subjoined table gives the origin of the imports :—

Principal Countries of Consignment.	1932–33.		1933–34.	
	Yards.	Rs. (lakhs).	Yards.	Rs. (lakhs.)
United Kingdom ...	2,798,737	52	3,181,372	57
Germany	461,902	9	399,137	6
Netherlands	59,122	2	33,942	1
Belgium	504,251	6	539,764	5
France	4,561,869	34	2,742,856	17
Italy	3,606,617	42	2,123,412	23
Japan	1,412,661	8	2,090,419	16
Other Countries	541,602	8	425,014	5
Total	13,946,761	1,61	11,535,916	1,30

The outstanding features of the year are, firstly, the improved position of the United Kingdom due to some extent to the margin of 10% and, secondly, the further remarkable rise in the imports from Japan. Bradford shippers have been able to displace the Continent in many lines. The fall in the share of France and Italy is mainly attributable to the substitution of cheap Japanese cloths., The increase in Japanese shipments has been phenomenal. They have risen from Rs.$\frac{3}{4}$ lakh in 1931-32 to Rs.8 lakhs in 1932-33 and nearly Rs.16 lakhs in the year under review. The recent imposition of a minimum specific import duty of 18 annas per lb. on all woollen piecegoods of foreign origin will, it is hoped, offset to some extent the disparity in price level between Japan, the Continent and the United Kingdom.

Woollen Shawls.—The aggregate trade declined by 10%. The figures are :—

Countries of Consignment.	1932–33.		1933–34.	
	Number.	Rs. (lakhs.)	Number.	Rs. (lakhs.)
United Kingdom... ...	10,865	*	8,908	†
Germany	186,382	8	171,456	7
Other Countries ...	141,044	3	151,251	2
Total Imports ...	338,291	11	331,615	9

* Rs. 37,402 † Rs. 24,433.

" Other Countries " include Italy, France and Japan. Japanese shipments in 1932-33 totalled 58,338 shawls valued at Rs.58,301.

Carpets and Floor Rugs.—The striking decline in this trade, as a result of the reduced purchasing power as applied to what is regarded as a luxury, continued and the present figures are the lowest to be recorded for more than 20 years :—

Principal Countries of Consignment.	1932-33. *Rs. (lakhs).*	1933-34. *Rs. (lakhs).*
United Kingdom	2	1·5
Persia	1	*
Other Countries	1	1
Total Imports	4	2·5

* Rs. 18,241

Cheap Italian printed tapestry rugs have been displaced by better quality productions from France, but the substitution of locally-manufactured " dhurries " is gradually killing the import of carpets into India.

Machinery and Millwork.—One of the most encouraging features of the year under review is the increase in the total imports of machinery and millwork from Rs.10½ crores (£7,875,000) to Rs.12¾ crores (£9,562,500). The downward movement from the high-water mark of 1928-29 has definitely been checked. Although the improvement is largely accounted for by an increase in the imports of the one item of sugar machinery by no less than Rs.1·8 crores, it is satisfactory to note that material increases are to be recorded in Prime-Movers, Agricultural Machinery, Machine Tools, Type-writers and Sewing and Knitting machines—all being items which reflect the economic position and purchasing power of the smaller consumer. This tends to show that the severity of the depression among the lesser industrialists is less than it was, a fact confirmed by recent enquiries for equipment of miscellaneous small industries, which are springing up under the stimulus of the high revenue tariff. Although the Indian cotton industry is in a relatively favourable position as compared with its competitors in Europe and the U.S.A. there has been a slight reduction in the arrivals of new plant. Imports of jute machinery are also lower. The demand for tea machinery was at a low ebb, but the success of the restriction scheme is expected to be followed within the near future by renewals of plant by many gardens. The statistics for electrical machinery, which are usually a barometer showing industrial progress, record a further sharp fall from Rs.1½ to Rs.1¼ crores. As I stated in my last report, the completion of deliveries of heavy plant for the hydro-electric projects in the Punjab, Madras and elsewhere, combined with the effects of the financial stringency, which has prevented both the Central and Provincial Governments from embarking upon new capital undertakings, has had a most restrictive effect. There are distinct signs, however, that both the Government of India and the Local Governments are anxious to take advantage of the present favourable interest rates and of the low level of machinery prices, to press on with capital schemes for electrical undertakings. Similarly, the lesser power companies seem to be showing more confidence in the future and a disposition to prepare for expansion when the trade revival sets in.

The following table shows the origin of the imports during the past two years :—

Countries of Consignment	1932-33. *Rs. (lakhs).*	1933-34. *Rs. (lakhs).*
United Kingdom	7,81	8,73
Germany	98	1,32
Belgium	39	43
Japan	4	8
U.S.A.	81	81
Other Countries	51	1,40
Total Imports	10,54	12,77

The next table shows the relative importance of the three principal suppliers before the war and during the past three years :—

Principal Countries of Consignment.	1913–14.	1931–32.	1932–33.	1933–34.
	%	%	%	%
United Kingdom... ...	90·0	70·2	74·1	68·4
U.S.A.	3·0	11·8	7·7	6·3
Germany	6·0	10·2	9·3	10·3
Other Countries ...	1·0	7·8	8·9	15·0
	100·0	100·0	100·0	100·0

The fall in the United Kingdom percentage figure to a record low level need not cause too much concern. It is attributable to a reduced demand for such United Kingdom specialities as textile machinery, tea machinery and electrical plant which coincided with exceptionally heavy imports of Dutch, German, French and Belgian sugar machinery. The position of the United Kingdom manufacturing engineer in India is an inherently sound one as it is based upon the suitability to Indian conditions of his design and the general excellence, finish and workmanship of the product. To these factors should be added the excellent service which is given, year in year out, by his branches and technical agents in the country. It is precisely in times of stress such as the present that the firm with an efficient organisation on the spot secures such reduced trade as may be offering. It is hoped that those few remaining firms of importance, who are not yet adequately represented in India, will take prompt steps to remedy this defect in their organisation.

On the other hand, more severe competition from both the Continent and the U.S.A. may be expected in the future. German, Swiss and other Continental firms are following our lead by arranging efficient representation in India and are often able to underquote in the case of low-priced industrial plant suitable for the bazaar trade. The U.S.A. has been severely handicapped on account of the depreciation of the sterling exchange, but the fall of the dollar during the past six months is now placing U.S.A. manufacturers of certain specialities in a more favourable position.

The following brief analyses of the principal types of machinery imported will be of interest :—

Cotton Textile Machinery.

	1931–32.	1932–33.	1933–34.
	Rs. (lakhs.)	Rs. (lakhs).	Rs. (lakhs).
Cotton Spinning Machinery	1,10	1,18	1,10
„ Weaving Machinery	69	70	70
„ Bleaching and Dyeing Machinery	3	3	4
„ Printing Machinery	*	2	1
Other sorts	10	15	18
Total Imports	1,92	2,08	2,03

* Rs. 21,475.

The provenance of the above imports was :—

Countries of Consignment.	1931-32.	1932-33.	1933-34.
	Rs. (lakhs).	Rs. (lakhs).	Rs. (lakhs).
United Kingdom	1,67	1,84	1,65
Germany	13	12	18
United States	4	4	2
Other Countries	8	8	18
Total	1,92	2,08	2,03

The slight setback experienced by United Kingdom textile machinists is probably due to the temporary dislocation caused by the formation of the combine for the manufacture of spinning machinery and the consequential advance in prices synchronising with more severe competition from Germany, Switzerland and Japan. German competition is mainly encountered in dobbies and other loom attachments and specialities, dyeing equipment and miscellaneous mill equipment. The U.S.A. provides patent winders while "other countries" cover miscellaneous items of spinning machinery from Spain, Japan, Italy and Switzerland and weaving machinery from Italy, the Netherlands, France, Belgium, Czechoslovakia and Japan. Offers of Japanese spinning and weaving plant at very low prices have been made during the year but, at the moment, the question of early delivery seems to be handicapping Japanese textile machinists as a result of the activity in their domestic industry.

Woollen Manufacturing Machinery.—The advance in imports, which was noted in last year's report, continued in consequence of further renewals and extensions to the mills at Cawnpore, in the Punjab and at Bombay. The figures were as follows :—

1931-32.	1932-33.	1933-34.
Rs.1,27,142	Rs.2,85,888	Rs.3,27,490

Details of origin are not yet available, but in 1932-33 the United Kingdom supplied practically the whole of the plant, German machinists sending under Rs.40,000 worth.

Electrical Machinery.—The following table gives the main types of electrical plant imported during the last two years :—

	1932-33. *Rs. (lakhs).*	1933-34 *Rs. (lakhs).*
Control and switchgear	27	24
Generators, alternators and dynamos	19	13
Motors	24	26
Transformers	19	12
Turbo-generating sets	5	2
Others	62	50
Total	1,56	1,27

Imports are now roundly 50% of the normal, but there are indications that the continuous decline, which has taken place during the last five years, will shortly be checked. Two or three moderate-sized hydro-electric schemes are likely soon to materialise. The extension of existing power plants to the smaller towns and the provision of new projects cannot long be deferred. A revival in the demand for plant is contingent upon the restoration of India's agricultural position and the revival of her industries. When this revival takes place, we shall probably witness a considerable demand for transmission lines, small industrial motors, etc., in the Punjab, United Provinces and Madras, where bulk power is available at a reasonable rate.

The provenance of the imports was as follows :—

Countries of Consignment.	1931–32.	1932–33.	1933–34.
	Rs. (lakhs).	Rs. (lakhs).	Rs. (lakhs).
United Kingdom	1,50	1,21	86
Germany	15	10	11
U.S.A.	36	16	17
Other Countries	15	9	13
Total	2,16	1,56	1,27

It is not surprising that the United Kingdom should have suffered most severely, her percentage falling from 77 to 67. The U.S.A. maintained its position largely due to the fulfilment of contracts for undertakings in which U.S.A. capital is invested. German competition, being largely in industrial motors and miscellaneous plant purchased by the Indian bazaars, was also not so materially affected. "Other Countries" in 1932-33 included Sweden (Rs.3 lakhs), Belgium (Rs.1 lakh), Switzerland (Rs.88,000) and Italy (Rs.77,000). As I have repeatedly stated, the local organisations of United Kingdom firms should be able—with their unrivalled experience and connections—to take the fullest advantage of the industrial revival when it comes.

Boilers.—The imports were as follows :—

Countries of Consignment.	1931–32.	1932–33.	1933–34.
	Rs. (lakhs).	Rs. (lakhs).	Rs. (lakhs).
United Kingdom	47	41	59
Germany	7	1	2
Other Countries	2	3	5
Total	56	45	66

The severity of the present depression will be realised from the fact that, during the first five post-war years, the average importation of boilers exceeded £1,000,000 per annum. The improvement

during the past year is largely due to the equipment of sugar factories and it is satisfactory to record that the United Kingdom share is still about 90%. Moreover, certain foreign boilers, notably some of those from Holland, are manufactured under royalty to United Kingdom designs.

Prime Movers (other than Electrical).—The total imports were classified as follows :—

	1932-33. *Rs. (lakhs).*	1933-34. *Rs. (lakhs).*
Locomotives.		
Oil Engines	2	*
Oil Engines (parts of)...	†	1
Steam Engines	2	1
Steam Engines (parts of)	5	3
Railway Locomotive Engines and Tenders and parts	32	43
Other than Locomotives.		
Gas Engines	1	‡
Gas Engines (parts of)	1	1
Oil Engines	36	40
Oil Engines (parts of)	12	13
Steam Engines	4	11
Steam Engines (parts of)	4	4
Others	1	4
Total Imports of Prime Movers	1,00	1,21

* Rs. 49,760. † Rs. 37,849. ‡ Rs. 40,607.

The slight improvement in the Indian industrial position is evidenced by the check to the downward trend of imports from the annual average of Rs.200 lakhs per annum in 1919-1923. While it is true that nearly half of the recovery is accounted for by increased shipments of railway locomotives, the advance of Rs.6 lakhs in the case of oil engines and Rs.7 lakhs in the case of steam engines is a good criterion of the improved position of the small industrialist. The provision of cheap electrical energy in bulk from the hydro-electric stations in the Punjab, United Provinces and Madras will probably lead to the substitution of electric motors for oil engine units throughout wide areas. There is, however, such scope for the application of power to Indian agriculture that the demand for prime movers utilising crude oil and steam is not likely to be permanently reduced. Details of the provenance of prime movers are not yet available, but United Kingdom manufacturers have, in the past, supplied fully 80% of the trade.

Agricultural Machinery.—There has been an encouraging expansion during the past year, which tends to show that the combined efforts of the Agricultural Departments and the Co-operative Credit Societies, reinforced by private activities such as those of the development department of the Burma-Shell Oil

Storage and Distributing Company of India Ltd., are slowly bearing fruit. The subjoined table reveals the position :—

	1931–32.	1932–33.	1933–34.
	Rs.	Rs.	Rs.
Agricultural Tractors and parts ...	3,13,358	3,78,559	4,99,812
Ploughs and parts	83,561	54,159	1,80,791
Others	1,18,487	2,65,799	3,33,326
Total Imports	5,15,406	6,98,517	10,13,929

Details of origin are not yet available, but in 1932-33 the U.S.A. supplied 75% of the tractors, the United Kingdom contributing 9%. Of the ploughs and parts thereof, the United Kingdom and the U.S.A. each contributed half. Miscellaneous types of agricultural machinery were drawn from the United Kingdom (70%), the U.S.A. (4%), and Germany (22%).

Mining Machinery.—A further heavy fall from Rs.38 to Rs.32 lakhs is to be recorded in the imports of mining machinery. Notwithstanding greater activity in the gold, iron, manganese and non-ferrous mining industries, the severe depression which pervades the Indian coal industry precluded any large importations of colliery plant, which is largely provided by the United Kingdom.

Countries of Consignment.	1932-33. *Rs. (lakhs).*	1933-34. *Rs. (lakhs).*
United Kingdom	26	21
Belgium	1	*
U.S.A.	11	10
Other Countries	†	1
Total Imports	38	32

* Rs. 47,941. † Rs. 34,515

In 1932-33 the United Kingdom supplied virtually the whole of the coal-mining machinery and most of the plant used on the Kolar Goldfields. U.S.A. competition is experienced in oil-well equipment and in plant for the non-ferrous mining industry in Burma and elsewhere.

Metal Working Machinery (including Machine Tools).—This heading mainly comprises machine tools of all types :—

Countries of Consignment.	1931–32.	1932–33.	1933–34.
	Rs. (lakhs).	Rs. (lakhs).	Rs. (lakhs).
United Kingdom	14	10	12
Germany	3	3	3
U.S.A.	2	1	1
Other Countries	*	†	‡
Total Imports	19	14	16

* Rs. 86,749. † Rs. 26,767. ‡ Rs. 49,615.

This trade, in which the United Kingdom secures the satisfactory figure of 75%, still suffers from the curtailment of railway purchases and from the reduced industrial demand. The former may be expected to broaden with the expansion of railway capital programmes while the demand for the equipment of the lesser industries of the country already shows signs of reviving. United Kingdom manufacturers are strongly represented and are in a favourable position to take advantage of any improvement.

Oil Crushing and Refining Machinery.—There has been a satisfactory advance in the aggregate trade, of which the United Kingdom has secured a greatly increased percentage. This is probably due to greater demands from the oil companies as the industry for crushing and refining vegetable oils is still suffering from the depression.

Countries of Consignment.	1931–32.	1932–33.	1933–34.
	Rs. (lakhs).	Rs. (lakhs).	Rs. (lakhs).
United Kingdom	18	12	18
Germany	8	5	6
United States	7	1	3
Other Countries	2	1	*
Total Imports	35	19	27

* Rs. 26,400.

In 1932-33, imports into Burma, which is normally one of the most important markets, shrank to less than Rs.5 lakhs in value and Bengal and Bombay took the greater share of the trade.

Paper Mill Machinery.—Indian paper mills continue to do well under cover of protective duties and the demand on account of renewals and extensions of existing plants has been buoyant. Imports were :—

1931-32.	1932-33.	1933-34.
Rs.6,32,297	Rs.5,31,237	Rs.11,02,623

In 1932-33, the last year for which detailed figures are available, the United Kingdom supplied 91%, Germany and Sweden sending negligible quantities.

Refrigerating Machinery.—Apart from the provision of renewals to the heavy plant for the few large cold storage depots at the ports, the bulk of the trade is in domestic refrigerators, which are still almost entirely drawn from the U.S.A. notwithstanding the 10% margin of Imperial Preference.

1931-32.	1932-33.	1933-34.
Rs.9,89,466	Rs.8,85,439	Rs.9,48,296

In 1932-33 the United Kingdom contributed 13%, mainly heavy plant for the large depots. The U.S.A., however, supplied 80%, chiefly in the form of domestic refrigerators, which are of appropriate design and are energetically distributed. As I stated in my last report, United Kingdom makers of domestic apparatus are late in the field and, although the depreciation of sterling coupled with the 10% preferential duty for a time gave them better opportunity, the progress made has been somewhat disappointing.

Rice and Flour Mill Machinery.—The effects of the depression are still apparent and a further contraction in the total trade is to be recorded.

Countries of Consignment.	1931–32.	1932–33.	1933–34.
	Rs. (lakhs).	Rs. (lakhs).	Rs. (lakhs).
United Kingdom	5	4	4
Germany	3	3	2
U.S.A.	1	1	0·5
Other Countries	1	1	0·5
Total	10	9	7

It is encouraging to note that United Kingdom makers are retaining their hold of the reduced trade, which is, at the moment, confined to renewals of existing plant.

Sawmill and Woodworking Machinery.—Here again, there has been no material development for several years and imports are largely confined to renewals for sawmills and woodworking machines for the railway carriage and wagon shops.

Countries of Consignment.	1931–32.	1932–33.	1933–34.
	Rs. (lakhs).	Rs. (lakhs).	Rs. (lakhs.)
United Kingdom	2	2¼	2½
Other Countries	1	½	½
Total	3	2¾	3

Such competition as is encountered is from the U.S.A. in sawmilling plant and from Germany in woodworking machines.

Sewing and Knitting Machines (including parts).—This valuable trade has suffered severely from the decline in the purchasing power of the Indian consumer and it is therefore all the more satisfactory to note an increase both in the total imports and in the share of

the United Kingdom. The imports of complete machines were as follows :—

Countries of Origin.	1931–32.	1932–33.	1933–34.
	Rs. (lakhs).	Rs. (lakhs).	Rs. (lakhs).
United Kingdom	35	29	32
Germany	10	10	11
Other Countries	1	2	1
Total	46	41	44

The numbers of United Kingdom machines rose from 27,838 to 39,804 and those from Germany from 10,681 to 13,795. " Other Countries " included the U.S.A., whence, in 1932-33, 297 machines valued at Rs.1 lakh were imported. Japanese imports, although still negligible, have been steadily growing, 130 machines valued at Rs.27,000 being imported in 1932-33. As I stated in my last report, the widespread organisation of the Singer Sewing Machine Co. (which serves the Indian market from its Clydebank factory) with its depots, schools and hire-purchase arrangements is second to none, and when Indian purchasing power recovers, the United Kingdom share—assisted by the preferential duty of 10%—should show a material advance. The following are the statistics of parts of sewing and knitting machines and accessories :—

1931-32.	1932-33.	1933-34.
Rs. (lakhs).	*Rs. (lakhs).*	*Rs. (lakhs).*
4½	4½	6

Sugar Machinery.—The machinery for some fifty new factories, with an average crushing capacity of 500 tons of cane per day each, was imported during the first half of the year for the October-February, 1933-34 crushing season. These imports were apportioned as follows :—

Countries of Consignment.	1931–32.	1932–33.	1933–34.
	Rs. (lakhs).	Rs. (lakhs).	Rs. (lakhs).
United Kingdom	26	91	1,96
Other Countries	4	62	1,40
Total Imports	30	1,53	3,36

It is satisfactory to note that the United Kingdom percentage has been maintained at 58 in face of severe competition from Dutch, German, Belgian and French manufacturers. The failure of certain Continental machinery has, in fact, contributed to the enhancement of the reputation of United Kingdom plant, which, in practically every case, has given even higher outputs than were guaranteed. Even more business could have been secured

had United Kingdom makers been prepared to accept the unreasonably long credit terms which were offered by many of the Indian companies, risks which they prudently declined to take. There are now signs that the development of factories in the sugar areas of the United Provinces and Bihar and Orissa has reached its maximum, but there is still scope for further plants in other parts of India such as Madras, Mysore, Hyderabad and the Deccan, where adequate supplies of suitable cane can be secured and where a ready market can be found in the vicinity. So far, contracts for only half a dozen new factories have been placed for the 1934-35 crushing season, but there is reason to believe that many promoters are waiting to see the financial results of existing factories since an excise of Rs.1-5-0 per cwt. on factory-produced sugar was imposed in the current year's budget. I therefore anticipate a further revival on a greatly reduced scale next year for the 1935-36 season.

The new factories have fully justified the enterprise of their owners as the following figures showing the all-India factory production of sugar and molasses during the season 1932-33 clearly show :—

Particulars.	1932–33.			1931–32.
	New factories.	Old factories.	Total.	Total.
Cane crushed ... Tons	2,152,053	1,198,178	3,350,231	1,783,499
Sugar produced ... „	187,685	102,492	290,177	158,581
Molasses produced „	81,692	48,727	130,419	69,208
Recovery of sugar % cane	8·72	8·55	8·66	8·89
Recovery of molasses % cane.	3·8	4·1	3·9	3·9

The Sugar Technologist, in a note on the production of sugar directly from cane in modern factories in India during the season 1932-33, summarises his conclusions by stating :—

> " The season under review marks the first step in the programme of expansion of the sugar industry in India. When expansion is rapid, conditions are generally unstable and efficiency suffers, and this is what has taken place, to a certain extent, in the present instance. But it is a matter for some satisfaction to those concerned with the technical aspects of the present development that, even in the first year of their operation, the new plants have shown results which on the average are not inferior to those of factories established for several years. This augurs well for the future and in course of time, provided cane cultivation is properly organised, machinery is carefully looked after and only well-qualified staff is employed, the efficiency as well as the capacity of the new factories should show progressive improvement and the industry as a whole should eventually find itself on a higher level of all-round efficiency than it has ever attained in the past."

Tea Machinery.—The year under review witnessed the successful inauguration of the restriction scheme and a material rise in prices which was reflected almost at once in the improved position and prospects of the Tea Companies. The Companies are now disposed to consider prudent capital expenditure on the gardens. Fertilisers receive first attention but the time is near when substantial renewals and improvements in the equipment of the factories will be made. It is anticipated therefore that the imports under this head will be materially increased during the next few years :—

1931-32.	1932-33.	1933-34.
Rs.10,69,126	Rs.21,46,634	Rs.12,28,533

The increase in 1932-33 was due to the installation by many factories of certain newly patented machines. The imports are almost exclusively drawn from the United Kingdom. In 1932-33, Rs.1¼ lakhs worth was drawn from Ceylon and Rs.36,526 from Germany.

Typewriters.—The history of the United Kingdom typewriter in India is a long record of inadequate marketing arrangements. This has recently been partially rectified with the result that there has been some slight improvement in the United Kingdom share, aided materially by the preferential margin of 10%.

Countries of Origin.	1932-33.		1933-34.	
	No.	Value (Rs.).	No.	Value (Rs.).
United Kingdom... ...	241	34,737	732	1,05,530
U.S.A.	3,580	5,06,334	5,499	6,02,087
Other Countries ...	123	20,063	347	37,836
Total	3,944	5,61,134	6,578	7,45,453

The secret of the success of the U.S.A. in this trade lies in their widespread distributing and service organisation.

Other Sorts of Machinery.—This " omnibus " heading includes all types of machinery and plant not specially classified in the Customs Returns. The total values were :—

1931-32.	1932-33.	1933-34.
Rupees.	*Rupees.*	*Rupees.*
1,55,16,084	1,51,74,790	1,56,35,149

In 1932-33 the United Kingdom contributed 62%, the U.S.A. 18%, Germany 11%, with small values from Italy, Sweden, Holland and Japan (Rs.1⅓ lakhs).

Iron and Steel.—The following statement giving the total imports of iron, steel and iron and steel into India during the past three years confirms the forecast in last year's report that the figures for the year 1932-33 would probably mark the lowest point of the

continuous decline from a total import of 1,197,000 tons in 1927-28. The improvement by over 3,000 tons shows some revival of purchasing power and synchronised with an increased output of 104,000 tons by the Tata Iron & Steel Co., Ltd.

Total Imports.	1931–32.	1932–33.	1933–34.
	Tons.	Tons.	Tons.
Iron	3,958	4,972	5,184
Steel	93,884	83,805	80,327
Iron or Steel	273,197	237,179	243,577
Total	371,039	325,956	329,088

Owing to a slight rise in prices, the improvement is even greater if values are taken. Total imports in 1932-33 were valued at Rs.530 lakhs while those in 1933-34 attained a value of Rs.553 lakhs. The main increases in tonnage occurred under the headings of wrought tubes and pipes; hoops and strips; beams, channels, pillars, girders and bridgework; bolts and nuts; fencing materials; cast pipes; black sheets; and rails, chairs and fishplates. On the other hand, there was a further material falling-off in imports of galvanised sheets, steel bars, wire nails, steel wire and railway sleepers and keys. When it is considered that, in times of reduced purchasing power, the local industry increases its share of the local trade, the turn in the tide in 1933-34 is of some significance and vindicates the view, which has always been advanced in these reports, that—in normal times—the Indian market provides not only an outlet for the full output of the Indian Works, but also ample scope for some 750,000 tons of imported material.

Production and Development of the Tata Iron and Steel Works.—I am indebted to the Tata Iron and Steel Company Limited for the following authoritative statement showing the production and the main items of development at Jamshedpur during the year ended the 31st March, 1934 :—

Production of Pig Iron.	
No. of furnaces in existence on 31/3/1934	5
	Tons.
Pig Iron Production	8,41,515
Pig Iron used in the works	6,98,921
Ferro-Manganese production for Works' use	10,536
	No. in existence on 31/3/1934.
Furnaces and Converters.	
Bessemer Converters (Acid)	3
Open Hearth Furnaces (Basic)	10
Production of Ingots.	Tons.
Open Hearth Furnaces (Basic)	2,37,006
Duplex Furnaces (Basic)	4,83,911

	No. in existence on 31/3/1934.
Rolling Mills.	
Cogging Mills	2
Rail and Heavy Section Mills	2
Plate Mill	1
Light Section, Bar and Merchant Mills	4
Sheet Bar and Billet Mill	1
Sheet Mill (Stands)	19
35-in. Roughing Mill	1
Production of Semi-Finished Steel.	Tons.
(*a*) Blooming Mill	6,30,987
(*b*) *Sheet Bar and Billet Mill* :—	
(1) Billets } Rolled from blooms produced on the Blooming Mills shown above.	1,69,520
(2) Sheet Bars and Sleeper bars	1,48,366
(3) Tin Bars and Wide Flats	65,216
Production of Finished Steel.	Tons.
Rails 50 lbs. and over (first class only)	35,190
Rails 30 lbs. and under	Nil.
Fishplates (first class only)	1,684
Angles, Channels and Tees	65,047
Beams	66,881
Rounds, Squares, Flats, Octagons, Tie Bars, Bearing Plates and Hornchecks	88,208
Plates	49,025
Sheets ⅛ in. and under, other than galvanised sheets	24,534
Galvanised Sheets	59,134
Blooms and Billets for sale	36,071
Sleepers	3,587
	4,29,361
Plus Sheetbars, Tinbars, Flat bars, Hoe bars and Sleeper bars for sale	1,01,834
Total	5,31,195

1. Sheet Mill Extension II is under consideration.

2. The gas cleaning plant, supplied by Messrs. Lodge-Cotterell, Ltd., Birmingham, is in course of erection and the work is expected to be completed by the end of the calendar year 1934.

Notwithstanding a decline in the output of railway rails due to the curtailment of Railway Board purchases and of beams and sleepers, the production of angles, channels and tees rose by 26,536 tons; beams by 6,426 tons; rounds, squares, flats, octagons and tie bars by 6,586 tons; plates by 20,094 tons; black sheets by 12,032 tons; galvanised sheets by 12,268 tons; blooms and billets by 12,207 tons; and semi-finished material for sale such as sheetbars, tinbars, flatbars, hoebars and sleeper bars by 15,764 tons. The number of sheet mill stands rose from twelve to nineteen and, as the second sheet mill extension is contemplated in the near future, the output of sheets will probably exceed 100,000 tons in the next few years.

The position of the Company will be dealt with at greater length in Chapter II, where the recent Tariff Board enquiry and the Steel Industry Protection Act, 1934, are dealt with exhaustively.

Origin of the Imports of Iron and Steel.—The following statement shows the chief sources of supply of iron and steel with the percentage share of each country in the import trade :—

	United Kingdom.		Germany.		Belgium.		France.		U.S.A.		Other Countries.		TOTAL.
	Tons (thousand).	Share %	Tons (thousand).	Share %	Tons (thousand).	Share %	Tons (thousand).	Share %	Tons (thousand.)	Share %	Tons (thousand).	Share %	Tons (thousand).
1913–14 ...	609	59·8	200	19·6	173	17·0	2	0·1	22	2·2	12	1·3	1,018
1919–20 ...	269	63·0	1	0·2	13	3·1	—	—	135	31·6	9	2·1	427
1920–21 ...	498	70·0	15	2·1	69	9·7	2	0·3	113	15·9	15	2·0	712
1921–22 ...	280	45·7	60	9·8	160	26·1	9	1·5	84	13·7	20	3·2	613
1922–23 ...	359	48·1	90	12·1	229	30·7	7	1·0	38	5·1	23	3·0	746
1923–24 ...	429	56·7	61	8·0	217	28·7	5	0·5	18	2·4	26	3·7	756
1924–25 ...	439	50·5	88	10·1	273	31·4	16	1·8	17	2·0	36	4·2	869
1925–26 ...	489	55·3	69	7·8	229	25·9	45	5·1	23	2·6	29	3·3	884
1926–27 ...	406	48·1	79	9·3	257	30·4	33	3·9	29	3·4	41	4·9	845
1927–28 ...	685	57·2	79	6·6	316	26·4	48	4·0	16	1·4	53	4·4	1,197
1928–29 ...	650	55·5	70	6·0	333	28·5	54	4·6	18	1·5	45	3·9	1,170
1929–30 ...	486	49·9	58	6·0	312	32·1	35	3·6	16	1·6	66	6·8	973
1930–31 ...	269	43·8	44	7·2	207	33·7	29	4·7	15	2·4	50	8·2	614
1931–32 ...	164	44·2	26	7·0	118	31·8	16	4·3	5	1·4	42	11·3	371
1932–33 ...	140	43·0	22	6·7	104	31·9	12	3·7	2	0·6	46	14·1	326
1933–34 ...	166	50·5	23	7·0	72	21·9	13	4·0	2	0·6	53	16·0	329

The next statement shows the principal headings under which competition was encountered in 1933-34 :—

Description.	From the U.K.	From Belgium.	From Germany.	From U.S.A.	TOTAL IMPORTS
	Tons.	Tons.	Tons.	Tons.	Tons.
Steel Bars (other than cast steel).	14,953	27,669	3,142	*	66,123
Beams, Channels, Pillars, Girders and Bridgework.	9,159	5,083	2,295	†	19,197
Nuts and Bolts	1,406	3,460	740	44	7,567
Hoops and Strips	12,762	7,741	3,521	†	28,070
Nails, Rivets and Washers ...	3,990	2,171	386	‡	10,614
Cast Pipes and Fittings ...	1,795	47	†	†	3,354
Galvanised Sheets and Plates	51,700	5,521	†	§	60,838
Tinned Plates	5,107	†	†‖	218	7,366
Sheets and plates not galvanised or tinned.	20,158	3,117	37	†	23,680
Wrought tubes, pipes and fittings.	12,557	753	3,503	¶	29,046
Wire Nails	241	4,005	1,180	**	11,939
Wire Rope	1,884	†	†	14	2,328
Rails, Chairs and Fishplates...	2,385	213	†	†	3,002
Sleepers and keys of steel or iron for railways.	2,472	316	†	†	2,875
Fencing Materials (including fencing wire).	714	1,060	1,256	†	5,654

* From Luxemburg 12,811 tons and France 5,489 tons.
† Not separately distinguished.
‡ From Sweden 1,401 tons and Norway 1,386 tons.
§ From Japan 3,488 tons.
‖ From other countries notably Italy and Germany, 2,041 tons.
¶ From Poland 4,469 tons, France 1,228 tons, U.S.A. 1,794 tons, Japan 952 tons and Holland 899 tons.
** From Japan 4,504 tons.

In some items there has been a marked advance in United Kingdom shipments at the expense of Continental competitors. One of the reasons for the advance is probably the preferential position resulting from the Ottawa Agreement. In wrought steel tubes, the United Kingdom share rose by 2,804 tons, in hoops and strips by 4,784 tons, in steel bars by 3,406 tons, fencing materials by 125 tons. In the outstanding case of galvanised sheets, the United Kingdom share rose from 49,667 to 51,700 tons while that of Belgium fell from 21,103 to 5,521 tons. The import of 3,488 tons (Rs.6 lakhs) of sheets from Japan is significant.

The following brief comments under each heading analyse the competitive position in 1933-34 as compared with the previous year :—

Bars (other than Cast Steel).—The total imports fell in quantity from 69,168 tons to 66,123 tons but rose in value from Rs.57 lakhs to Rs.63 lakhs. Imports from the United Kingdom rose from 11,547 tons (Rs.15 lakhs) to 14,953 tons (Rs.19¾ lakhs). Arrivals

from Belgium fell in quantity from 32,003 tons to 27,669 tons but rose slightly in value from Rs.22¾ lakhs to Rs.23 lakhs. Conversely, imports from Luxemburg fell from 17,057 tons to 12,811 tons in quantity but values were only reduced from Rs.10¾ lakhs to Rs.10 lakhs. Imports from France were slightly higher at 5,489 tons (Rs.4¼ lakhs) and those from Germany at 3,142 tons (Rs.3 lakhs).

Beams, Channels, Pillars, Girders and Bridgework.—It is somewhat remarkable—in view of the prevailing depression and of the success of the Tata Iron and Steel Company in obtaining such structural sections as were ordered—that the total trade advanced from 15,738 tons (Rs.15¼ lakhs) to 19,197 tons (Rs.21 lakhs). The United Kingdom share rose from 5,832 tons (Rs.8½ lakhs) to 9,159 tons (Rs.13 lakhs), whereas that of Belgium fell from 5,852 tons (Rs.4¼ lakhs) to 5,083 tons (Rs.4 lakhs) and France from 2,675 tons (Rs.1¾ lakhs) to 1,711 tons (Rs.1¼ lakhs).

Bolts and Nuts.—This trade also expanded from 6,452 tons (Rs.18¼ lakhs) to 7,567 tons (Rs.21 lakhs). The United Kingdom share advanced from 1,030 tons (Rs.4 lakhs) to 1,406 tons (Rs.5¼ lakhs), that of Belgium from 3,253 tons (Rs.6 lakhs) to 3,460 tons (Rs.6¾ lakhs), while imports from Germany rose in quantity from 728 tons to 740 tons but fell in value from Rs.3¼ lakhs to Rs.3 lakhs.

Fencing Materials (including Fencing Wire).—A slight increase in the aggregate trade is to be recorded from 4,524 tons (Rs.14 lakhs) to 5,654 tons (Rs.15 lakhs). Arrivals from the United Kingdom rose from 589 tons (Rs.2 lakhs) to 714 tons (Rs.2½ lakhs). Imports from Germany fell from 1,464 tons (Rs.6 lakhs) to 1,256 tons (Rs.4¼ lakhs), those from Belgium from 1,321 tons (Rs.3 lakhs) to 1,060 tons (Rs.2 lakhs). The share of " other countries " rose from Rs.3¼ lakhs to Rs.5¾ lakhs.

Hoops and Strips.—The total trade advanced from 24,345 tons (Rs.27½ lakhs) to 28,070 tons (Rs.35¾ lakhs). It is encouraging to note that, probably due to the preference, arrivals from the United Kingdom rose from 7,978 tons (Rs.10¼ lakhs) to 12,762 tons (Rs.16½ lakhs). Arrivals from Germany also increased from 2,017 tons (Rs.2½ lakhs) to 3,521 tons (Rs.5 lakhs). On the other hand, Belgian imports fell from 10,109 tons (Rs.10½ lakhs) to 7,741 tons (Rs.9¼ lakhs).

Nails, Rivets and Washers (other than Wire Nails).—The total imports remained practically stationary at 10,614 tons valued at Rs.28¼ lakhs. Imports from the United Kingdom rose from 3,004 tons (Rs.8 lakhs) to 3,990 tons (Rs.9¼ lakhs). Arrivals from Belgium fell from 2,564 tons (Rs.5½ lakhs) to 2,171 tons (Rs.4 lakhs), those from Norway from 1,529 tons (Rs.4½ lakhs) to 1,386 tons (Rs.3½ lakhs) and Germany from 625 tons (Rs.2½ lakhs) to 386 tons (Rs.1½ lakhs). On the other hand, arrivals from Sweden rose from 1,283 tons (Rs.6¼ lakhs) to 1,401 tons (Rs.6½ lakhs).

Cast Pipes and Fittings.—Here again the total trade rose from 2,096 tons (Rs.6 lakhs) to 3,354 tons (Rs.7½ lakhs). United Kingdom shipments advanced from 1,223 tons (Rs.5 lakhs) to 1,795 tons (Rs.6 lakhs).

Rails, Chairs and Fishplates.—The trade advanced slightly from 1,737 tons (Rs.4½ lakhs) to 3,002 tons (Rs.5 lakhs). The United Kingdom proportion rose from 1,150 tons (Rs.4 lakhs) to 2,385 tons (Rs.4¼ lakhs). Imports from "other countries" were negligible.

Screws.—The total imports shrank from 1,953 tons (Rs.10 lakhs) to 1,447 tons (Rs.6¼ lakhs). Arrivals from the United Kingdom fell from 414 tons (Rs.2¼ lakhs) to 361 tons (Rs.1¾ lakhs) and those from Belgium from 901 tons (Rs.4½ lakhs) to 365 tons (Rs.1½ lakhs). The share of "other countries" was, however, increased. Of the total screws imported in 1933-34, 1,106 tons represents woodscrews and 341 tons metal thread screws.

Galvanised Sheets and Plates.—The total trade declined still further from 72,658 tons (Rs.123¼ lakhs) to 60,838 tons (Rs.113¼ lakhs) due to the intensity of the depression throughout India and particularly in the jute districts of Eastern Bengal and also to the severity of competition from sheets produced by the Tata Company. As a result of the fiscal advantage conferred by the Ottawa Trade Agreement, imports from the United Kingdom rose from 49,667 tons (Rs.87 lakhs) to 51,700 tons (Rs.98¼ lakhs), whereas those from Belgium declined from 21,103 tons (Rs.33 lakhs) to 5,521 tons (Rs.8½ lakhs). Imports from Japan grew from 1,357 tons (Rs.2½ lakhs) to 3,488 tons (Rs.6 lakhs). The output capacity of the Tata Company is now fully 100,000 tons per annum and further extensions are contemplated in the near future.

Tinned Plates.—The steady advance in Indian production, coupled with the depression in Indian industries, has materially reduced the scale of this trade. During the past year, however, the total imports rose from 7,022 tons (Rs.19½ lakhs) to 7,366 tons (Rs.22 lakhs). The share of the United Kingdom fell from 6,906 tons (Rs.19 lakhs) to 5,107 tons (Rs.15½ lakhs). Arrivals from the U.S.A. were trifling but imports from the Continent (Germany and Italy) rose sharply from 116 tons (Rs.35,000) to no less than 2,041 tons (Rs.5¾ lakhs).

Sheets and Plates (not Galvanised or Tinned).—This trade has been fairly well maintained during the depression, the total imports during the past year advancing from 22,085 tons (Rs.27 lakhs) to 23,680 tons (Rs.30½ lakhs). Imports from the United Kingdom rose from 19,043 tons (Rs.24¼ lakhs) to 20,158 tons (Rs.27 lakhs), while those from Belgium advanced slightly from 2,676 tons (Rs.2¼ lakhs) to 3,117 tons (Rs.3 lakhs).

Sleepers and Keys of Steel or Iron for Railways.—The total imports fell slightly from 3,395 tons (Rs.4⅓ lakhs) to 2,875 tons (Rs.4¼ lakhs). Arrivals from Belgium dropped from 1,408 tons (Rs.1¼ lakhs) to a mere 316 tons (Rs.30,000). On the other hand, imports from the United Kingdom rose from 1,954 tons (Rs.3 lakhs) to 2,472 tons (Rs.4 lakhs).

Wrought Tubes, Pipes and Fittings.—In spite of the depression, this valuable trade advanced from 23,461 tons (Rs.61¾ lakhs) to 29,046 tons (Rs.71½ lakhs). The United Kingdom share rose from 9,753 tons (Rs.28 lakhs) to 12,557 tons (Rs.37¾ lakhs). Imports from Poland rose from 3,611 tons (Rs.8¼ lakhs) to 4,469 tons (Rs.8¾ lakhs). Arrivals from Germany, however, fell from 4,385 tons (Rs.10¾ lakhs) to 3,503 tons (Rs.7½ lakhs). Shipments from the U.S.A. also dropped from 1,923 tons (Rs.4¾ lakhs) to 1,794 tons (Rs.4 lakhs) and those from Holland were also reduced from 1,330 tons (Rs.3 lakhs) to 899 tons (Rs.2 lakhs). Imports from France advanced from 322 tons (Rs.¾ lakh) to 1,228 tons (Rs.2½ lakhs).

Wire Nails.—The total imports fell from 13,198 tons (Rs.23¼ lakhs) to 11,939 tons (Rs.20 lakhs). Imports from Belgium shrank from 5,739 tons (Rs.11 lakhs) to 4,055 tons (Rs.6½ lakhs) and those from Germany from 2,335 tons (Rs.4¼ lakhs) to 1,180 tons (Rs.2 lakhs). On the other hand, imports from Japan rose sharply from 3,241 tons (Rs.5 lakhs) to 4,504 tons (Rs.7½ lakhs) and "other countries" from 1,670 tons (Rs.3 lakhs) to 2,009 tons (Rs.3¼ lakhs). Imports from the United Kingdom remained practically negligible at 241 tons valued at Rs.½ lakh.

Wire Rope.—The total imports rose from 2,049 tons (Rs.10¾ lakhs) to 2,328 tons (Rs.11½ lakhs). The United Kingdom share advanced from 1,649 tons (Rs.9 lakhs) to 1,884 tons (Rs.9¾ lakhs).

Aluminium.—The steady decline in the imports of aluminium in all its forms has at last been checked and aggregate values advanced from Rs.22 to Rs.32 lakhs during the year. The figures for 1929-30 were Rs.142 lakhs, so that there is much leeway to be made up.

	1932–33.		1933–34.	
Unwrought	Cwt.	Rs. (lakhs).	Cwt.	Rs. (lakhs).
Ingots, blocks, bars ...	164	*	125	†
Wrought				
Circles	16,892	14	30,932	24
Sheets	1,544	1	1,744	1
Other Manufactures ...	5,953	7	6,686	7
Total Imports ...	24,553	22	39,487	32

* Rs. 5,593. † Rs. 9,606.

Particulars relating to the origin of the imports in 1933-34 are not yet available, but in 1932-33, of the circles, the United Kingdom supplied 50%, Japan 36%, France 4% and Switzerland 3%. The U.S.A. which, prior to the formation of the European cartel, used to be the main supplier, only contributed 3% and has been almost out of the market since 1930-31. The relatively unimportant trade in sheets was shared by the United Kingdom (Rs.87,000), Germany (Rs.16,000), trivial quantities coming from Switzerland and the U.S.A. Imports of "other manufactures," comprising mainly wire and utensils, were drawn from the United Kingdom (21%), Germany (54%) and Belgium (15%).

Brass, Bronze and Similar Alloys.—*Mixed or Yellow Metal for Sheathing.*—There has been a slight set-back to the advance recorded last year, and the total figures of 422,366 cwt. compare unfavourably with those of 456,312 cwt. in 1928-29, revealing the severe fall in purchasing power of the people. As yellow metal sheets are the raw material of the common Indian household hollow-ware, fluctuations in imports reflect fairly closely the economic position of the masses.

Countries of Consignment.	1932-33.		1933-34.	
	Cwt.	Rs. (lakhs).	Cwt.	Rs. (lakhs).
United Kingdom... ...	150,091	47	156,345	46
Germany	236,799	72	170,401	47
Japan	95,697	30	95,491	26
Other Countries ...	290	*	129	†
Total	482,877	1,49	422,366	1,19

* Rs. 11,267. † Rs. 4,015.

The preferential margin has probably assisted the United Kingdom rollers in maintaining the volume of their shipments and improving their relative position from 31 to 38%.

Other Manufactures (Wrought).—The imports were :—

	1932-33. *Rs. (lakhs).*	1933-34. *Rs. (lakhs).*
Rods	4	2
Sheets	2	1
Tubes	1	1
Wire	3	2
Other Sorts	20	12

Copper (Wrought).—The imports of wrought copper during the past two years have been as follows :—

	1932-33. *Rs. (lakhs).*	1933-34. *Rs. (lakhs).*
Sheets	96	65
Rods	8	11
Tubes	1	2
Wire (excluding telegraph and telephone wire)	3	2
Other Manufactures	4	3

The next table gives the provenance of the imports :—

Countries of Consignment.	1932–33.		1933–34.	
	Cwt.	Rs. (lakhs).	Cwt.	Rs. (lakhs).
United Kingdom... ...	72,217	28	113,359	38
Germany	192,345	67	103,708	32
Belgium	10,699	4	3,308	1
France	3,201	1	356	*
Japan	22,268	7	30,909	9
U.S.A.	13,056	4	10,548	2
Other Countries ...	2,419	1	349	1
Total	316,205	1,12	262,537	83

* Rs. 14,017.

The displacement of Germany by the United Kingdom, thanks in part to Imperial Preference and consolidation of the interests of United Kingdom producers, and the intensified competition from Japan are the two outstanding features of the year. Competition from the products of the Indian Copper Corporation tends to increase.

German Silver (including Nickel Silver).—The trade remained stationary.

	1931–32.	1932–33.	1933–34.
Quantity (cwt).	13,551	17,512	17,244
Value (Rs. lakhs) ...	10	13	12

The United Kingdom in 1932-33 supplied 19%, Italy 40%, Switzerland 14% and Austria 14%.

Railway Plant and Rolling Stock.—The unsatisfactory classification of this item since the discontinuance of the issue of combined statistics in 1928 makes comment somewhat difficult. Rails and permanent-way material are now classified under iron and steel, locomotives appear under machinery (prime movers), while carriages and wagons are included under vehicles.

State-operated Lines.—The only separately classified statistics appearing in the Monthly Returns, on which this report is based are :—

	1932-33.	1933-34.
	Rs. (lakhs).	*Rs. (lakhs).*
Carriages and parts for railways	3	2½
Wagons and parts for railways	*	½

* Rs. 16,162.

In 1932-33, Rs.12½ lakhs worth of locomotives and parts were imported on account of State Railways, Rs.9¾ lakhs being obtained from the United Kingdom and Rs.1¼ lakhs from Germany.

Company-worked Lines.—The imports of railway material entering India as private merchandise on account of the Companies' lines were :—

Rails, Chairs and Fishplates.

Country of Origin.	1932-33.		1933-34.	
	Tons.	Rs. (lakhs.	Tons.	Rs. (lakhs).
United Kingdom ...	1,150	4	2,385	4
Belgium	39	*	213	†
Other Countries ...	548	‡	404	1
Total	1,737	4	3,002	5

* Rs. 3,425. † Rs. 22,005. ‡ Rs. 55,088.

Sleepers and Keys of Steel or Iron for Railways.

Country of Origin.	1932-33.		1933-34.	
	Tons.	Rs. (lakhs).	Tons.	Rs. (lakhs).
United Kingdom... ...	1,954	3	2,472	4
Belgium	1,408	1	316	†
Other Countries ...	33	*	87	‡
Total	3,395	4	2,875	4

* Rs. 3,158. † Rs. 30,660. ‡ Rs. 9,888.

Railway Locomotive Engines and Tenders and Parts.

Country of Origin.	1932-33. *Rs. (lakhs).*	1933-34. *Rs. (lakhs).*
United Kingdom	... 26	34
Germany	... 3	3
U.S.A.	... 1	2
Other Countries	... 2	4
Total	... 32	43

Railway Carriages and Parts.

Country of Origin.	1932-33. *Rs. (lakhs).*	1933-34. *Rs. (lakhs).*
United Kingdom	... 18	24
Germany	... *	8
Belgium	... 2	1
Other Countries	... 3	4
Total	... 23	37

* Rs. 54,964.

Railway Wagons and Parts.

Country of Origin.	1932-33. *Rs. (lakhs).*	1933-34. *Rs. (lakhs).*
United Kingdom	11	8
Germany	1	2
Belgium	1	1
Other Countries	*	1
Total	13	12

* Rs. 56,007.

United Kingdom manufacturers of railway rolling-stock have been severely penalised by the curtailment of capital expenditure and particularly of expenditure in sterling which has been the policy of the Government of India for some years. Locomotives and parts of rolling-stock such as wheels and axles, buffers, springs, brake gear, etc., are now the only items left to be imported. Practically all the wagons, underframes of coaching stock and most of the permanent way material are now made in the country; and plans exist for a locomotive works in India.

Motor Cars.—The progress of the trade over a period of years is clearly seen in the following table, which gives the number of cars imported in each of the post-war years :—

	United Kingdom.	United States (*a*)	Canada.	France.	Italy.	Other Countries.	Total.
Year 1913–14 (pre-war).	1,669	868	—	111	7	225	2,880
War average (1914–15 to 1918–19).	537	1,681	—	49	28	22	2,317
Year 1919–20 ...	448	9,353	20	3	17	84	9,925
„ 1920–21 ...	2,541	10,120	1,938	192	218	423	15,432
„ 1921–22 ...	790	802	576	158	222	347	2,895
„ 1922–23 ...	449	1,386	1,846	61	131	450	4,323
„ 1923–24 ...	1,005	2,865	3,290	153	370	301	7,984
„ 1924–25 ...	1,682	3,106	3,956	215	235	186	9,380
„ 1925–26 ...	2,399	4,143	4,775	367	860	213	12,757
„ 1926–27 ...	2,546	4,030	4,476	607	1,416	122	13,197
„ 1927–28 ...	3,600	6,031	3,400	538	1,367	186	15,122
„ 1928–29 ...	3,645	10,145	4,366	277	967	167	19,567
„ 1929–30 ...	3,758	9,620	2,318	364	1,150	189	17,399
„ 1930–31 ...	2,885	5,098	3,250	261	917	190	12,601
„ 1931–32 ...	2,178	3,368	676	161	510	327	7,220
„ 1932–33 ...	3,958	1,201	296	84	226	436	6,201
„ 1933–34 ...	5,348	2,227	1,715	62	221	186	9,759

(*a*) The country of origin of many of the cars imported from the United States of America during the years previous to 1920–21 is Canada.

The exchange advantage which United Kingdom manufacturers had enjoyed vis-a-vis their U.S.A. and Canadian competitors has now been largely neutralised since the fall in the dollar exchange

towards the end of 1933. Registrations of the well-known makes of U.S.A. cars, such as the Chevrolet and the Ford, rose sharply during the latter half of the year under review. There are signs, however, that the Indian car-owner is now paying greater attention to low running costs, the life of the vehicle, and its second-hand selling value, all points which are in favour of the smaller horse-power United Kingdom vehicle. Although more intense competition will probably have to be faced in the future, it is likely that the present vogue for the smaller United Kingdom car will continue and that a considerable amount of the ground gained during the past three years will be retained. If the recent reduction of the horse-power tax in the United Kingdom results, as is hoped, in the mass production of greater numbers of higher horse-power vehicles for the home market, then the United Kingdom manufacturer will, at last, have an opportunity of scaling down his prices to enter the field against his U.S.A. competitors in the market for 20-30 h.p. vehicles, of which the up-country 'bus fleets in India are mainly composed.

Country of Origin.	1932–33.		1933–34.	
	No.	Rs.	No.	Rs.
United Kingdom... ...	3,958	80,05,887	5,348	1,06,14,709
Germany	146	2,09,442	106	1,50,721
France	84	2,27,124	62	1,44,942
Italy	226	4,80,274	221	4,70,023
Canada	296	6,15,770	1,715	25,51,757
U.S.A.	1,201	28,51,862	2,227	36,31,660
Other Countries ...	290	4,69,259	80	1,30,866
Total	6,201	1,28,59,618	9,759	1,76,94,678

Owing to the revival of U.S.A. and Canadian activity in the latter half of the year consequent upon lower rupee selling prices, notably of Ford and Chevrolet vehicles, the United Kingdom share fell from 63 to 54% of the numbers of cars imported and from 62 to 60% of the values. The local distributing organisations of the half dozen or so leading United Kingdom suppliers to this market have been further consolidated during the year and there is now a refreshing desire on the part of local firms of motor agents to hold a good United Kingdom agency, which is in sharp contrast to the position a few years ago and proves that the business is a lucrative one. The 7½% preference is a valuable help. As I have repeatedly stated, the Indian market is potentially one of the greatest in the Empire and will amply repay all the attention and care that can be given to it. The Central and Provincial Governments are committed to a programme for the improvement and extension of roads throughout the country and there is no doubt that, once the present depression lifts, the expansion of motor transport will proceed at a greatly accelerated pace.

The following statement shows the number of motor vehicles registered in British India on the 31st March, 1934 :—

Provinces.	Motor cars including taxi-cabs.	Motor cycles including scooters and auto-wheels.	Heavy motor vehicles (lorries, buses, etc.).	TOTAL.
	No.	No.	No.	No.
Bengal (including Calcutta) ...	39,005	5,312	5,060	49,377
Bombay City (*a*)	9,930	516	949	11,395
Bombay Presidency (excluding Bombay City and Sind) (*a*).	10,827	776	39	11,642
Madras City	14,374	3,196	2,171	19,741
Madras Presidency (excluding Madras City) (*a*).	7,617	1,382	5,676	14,675
United Provinces (*b*)	12,806	1,792	4,447	19,045
Punjab	6,253	1,226	5,404	12,883
Burma (*a*)	9,881	1,077	5,296	16,254
Bihar and Orissa	10,263	1,393	2,483	14,139
Central Provinces (*c*)	3,411	632	1,724	5,767
Sind	1,815	412	520	2,747
Delhi (*c*)	8,609	1,495	2,104	12,208
North West Frontier Province ...	3,972	1,552	2,990	8,514
Ajmer-Merwara	866	204	244	1,314
Assam (*b*)	1,786	153	1,320	3,259
TOTAL	141,415	21,118	40,427	202,960

(*a*) *Actually running.*
(*b*) *Figures relate to the year ending December,* 1933.
(*c*) *Represent number of vehicles re-registered during the year.*

Motor Omnibuses, Vans and Lorries.—The imports more than doubled in number during the year and increased by over 50% in value. This is largely attributable to the revival of demand from the up-country 'bus owners, resulting from improved economic conditions, synchronising with the re-entry of the favourite U.S.A. vehicles at low prices since the fall in the dollar exchange. The provenance of the imports was as follows :—

Countries of Consignment.	1932–33.		1933–34.	
	No.	Rs. (lakhs).	No.	Rs. (lakhs).
United Kingdom... ...	517	10	528	12
Canada	338	6	1,243	16
U.S.A.	1,793	25	3,692	37
Other Countries ...	28	*	33	1
Total	2,676	41	5,496	66

* Rs. 52,099.

The figures for the United Kingdom are disappointing. The rise in values shows that a greater number of the heavier weight vehicles have been imported during the year, but United Kingdom manufacturers have so far made little headway in the vast market for light and comparatively high-powered trucks for 'bus and general transport use. The reduced horse-power tax in the United Kingdom will, it is hoped, give a fillip to the production of this type of vehicle at prices which are competitive with the American trucks of the Chevrolet or Dodge type and with the Ford. There is no doubt that the exact type of vehicle can be, and is being, produced in the United Kingdom, but the price is too high for the Indian who promotes a transport organisation and has only a strictly limited amount of capital. He now purchases U.S.A. and Canadian vehicles on the hire-purchase system, runs them to death, and scraps them after a couple of years or so, thus avoiding the necessity for any repair and maintenance organisation. Wherever transport companies are operated on modern lines, with due attention to maintenance and repairs, the United Kingdom truck has a better chance, but, apart from the few large cities, the transport both of passengers and goods is likely to continue to be carried in light vehicles, which are suited to the needs of the country.

Motor Cycles.—A further reduction is to be recorded in this trade consequent upon the still further reduced purchasing power among the class of Europeans, Anglo-Indians and Indians, who purchase motor cycles. The improvement in the tea industry may give some stimulus to the demand from tea gardens staffs in the near future.

Countries of Consignment.	1932–33.		1933–34.	
	No.	Rs.	No.	Rs.
United Kingdom... ...	699	3,26,887	612	2,98,555
U.S.A.	1	1,620	12	9,054
Other Countries ...	82	23,012	76	18,945
Total	782	3,51,519	700	3,26,554

The re-appearance of U.S.A. machines is noteworthy. Hitherto, machines of the " Harley Davidson " and " Indian " types have been used for police work in India. In 1932/33 the imports from "other countries " included 47 machines valued at Rs.10,232 from Germany and 6 machines valued at Rs.1,370 from France, the remainder being machines re-exported from Ceylon, Straits Settlements and other British Possessions.

Cycles (other than Motor Cycles and Parts thereof) and Accessories.—The slight improvement in the purchasing power of

the urban population is reflected by a further encouraging increase in the total imports. The figures are :—

	1931–32.	1932–33.	1933–34.
Cycles imported entire or in sections ...	No. 49,672	No. 69,528	No. 88,624
Value of parts of cycles and accessories (excluding rubber tyres).	Rs. (lakhs). 47	Rs. (lakhs). 60	Rs. (lakhs). 64

The aggregate imports of cycles, parts and accessories were drawn as follows :—

Countries of Origin.	1931–32.	1932–33.	1933–34.
	Rs. (lakhs).	Rs. (lakhs).	Rs. (lakhs).
United Kingdom	43	52	63
Germany	8	8	6
Japan	12	19	18
Other Countries ...	2	1	2
Total	65	80	89

The 10% preference has, among other factors, helped United Kingdom suppliers to secure more than the increase in the total trade and the improvement in their share from 65 to 71%. Japanese competition would seem to be checked for the moment, but the import of Japanese sections and accessories at phenomenally low prices still continues, and complete machines are now imported at prices which are attractive to the buyer. The reputation of the United Kingdom machine for long life, durability and value for money is a great asset, which will operate even more powerfully in our favour when purchasing power recovers.

Provisions.—The effects of the depression may be measured by the decline in the trade from a total of Rs.621 lakhs in 1928-29 to Rs.271 lakhs in the year under review. The fall is due first to reduced purchasing power which has seriously affected the consumption of such quasi-luxury articles as biscuits, condensed milk, milk foods and canned fish and, second, to the practical elimination of the imports of vegetable products (vegetable ghee, vegetable fats, or solidified vegetables oils as they are popularly known) resulting partly from the development of local manufacture and partly from the agitation, carried on largely by interested parties,

against their use. The following table gives the source of the imports of provisions during the past two years. :—

Countries of Consignment.	1932-33. *Rs. (lakhs).*	1933-34. *Rs. (lakhs).*
United Kingdom	1,40	1;51
Netherlands	35	24
Straits Settlements	20	20
China (including Hongkong)	8	9
U.S.A.	19	14
Australia	18	16
Other Countries	53	37
Total	2,93	2,71

The preferential duty has contributed towards enabling United Kingdom suppliers not only to increase their percentage from 47 to 55 but to add Rs.11 lakhs to the value of their shipments during a period of declining trade. If non-competitive trade (such as vegetable product and the imports of Oriental produce from the Straits Settlements and China) be eliminated, we find that the United Kingdom supplies no less than 62% as compared with 55% in 1932-33. A study of the following table of articles imported shows that the demand for bottled and canned goods has been maintained while that for the cruder forms of provisions, such as Oriental produce, has declined materially.

Principal Articles.	1932-33. *Rs. (lakhs).*	1933-34. *Rs. (lakhs).*
Bacon and Hams	9	12
Biscuits and Cakes	28	30
Butter	5	6
Canned or bottled fruits	8	10
Tinned or canned fish	9	8
Vegetable Product (vegetable ghee, vegetable fat, etc.)	13	1
Other canned or bottled provisions	52	36
Cheese (including canned)	8	8
Cocoa and Chocolate	3	3
Confectionery	15	17
Farinaceous foods in bulk	26	24
Milk foods for infants and invalids	19	16
Other farinaceous foods	18	26
Jams and jellies	4	6
Milk, condensed and preserved (including milk cream)	49	45
Pickles, chutnies, sauces and condiments	4	6

Liquors.—*Ale, Beer and Porter.*—The following table gives the imports, both quantities and values, during the past two years :—

Countries of Consignment.	1932–33.		1933–34.	
	Gallons.	Rs. (lakhs).	Gallons.	Rs. (lakhs).
United Kingdom... ...	2,446,565	50	2,183,993	45
Germany	507,657	14	375,638	11
Netherlands	282,211	6	308,304	6
Japan	415,965	4	525,621	5
Other Countries ...	65,352	2	62,270	2
Total	3,717,750	76	3,455,826	69

When one considers the heavy taxation on imports and the reduced purchasing power of the European and Anglo-Indian communities in India, it is remarkable that the consumption should have been so well maintained. In 1932-33, 2,402,596 gallons of beer were imported in bottle of which the United Kingdom supplied 1,162,598 gallons, Germany 505,074 gallons, Japan 415,654 gallons and Holland 267,935 gallons. Of the beer imported in bulk, amounting to 1,188,570 gallons, the United Kingdom supplied 97%, only trifling quantities being drawn from Holland and Belgium. The imports of stout and porter amounting, in 1933-34, to 114,316 gallons, were almost entirely drawn from the United Kingdom. The preferential duties, which are on a specific basis, have played their part in enabling United Kingdom shippers to keep their share of the trade at 64% in face of the competition of popular brands of German and Dutch beers of the light lager type. The average value of imported Japanese beer was Rs.0·96 per gallon = say 1s. 5½d. as compared with Rs.2 = 3s. in the case of the United Kingdom.

Spirits.—The subjoined table shows the quantities and values of the principal kinds of spirit imported in India :—

Description.	1932–33.		1933–34.	
	Gallons.	Rs. (lakhs).	Gallons.	Rs. (lakhs).
Brandy	113,921	17	118,581	18
Gin	86,078	7	90,630	8
Liqueurs	7,748	2	9,511	2
Rum	2,113	*	1,723	†
Whisky	331,416	55	335,674	56
Spirit present in drugs ...	102,479	33	110,510	34
„ perfumed	4,968	5	6,897	7
„ denatured ...	856,788	8	517,584	7
Other sorts	18,800	7	22,164	6

* Rs.16,493. † Rs.16,468.

The next table gives the countries of consignment of all spirits :—

Countries of Consignment.	1932-33.		1933-34.	
	Gallons.	Rs. (lakhs).	Gallons.	Rs. (lakhs).
United Kingdom... ...	475,501	84	492,618	89
Germany	11,268	2	12,445	3
France	121,861	21	127,559	22
Java	856,861	8	521,323	7
United States	47,545	16	45,142	14
Other Countries	11,275	2	14,187	3
Total	1,524,311	1,33	1,213,274	1,38

The spirit trade has shown wonderful resilience in fact of high taxation and reduced purchasing power but has fallen to half the gallonage imported in 1929-30.

Brandy is almost entirely drawn from France with negligible values of re-exported brandy from the United Kingdom and Germany. In 1932-33, of a total of 86,078 gallons of gin, the United Kingdom supplied 82,195 gallons and Holland 3,543 gallons. In the same year, the United Kingdom shipped 330,732 gallons of a total of 331,416 gallons of whisky imported, the imports of cheap spirit from Germany for bazaar consumption having fallen to 284 gallons. Spirit present in drugs, etc. was obtained from the United Kingdom (40%), U.S.A. (44%), France (9%) and Germany (4%). Perfumed spirit was drawn from the United Kingdom (51%), France (18%) and Germany (28%). Java supplies practically the whole of the spirit which is denatured at Indian Custom Houses before clearance, but with the recent development of the Indian sugar industry the trade is declining rapidly.

Wines.—The relatively small imports of wines rose from 165,370 gallons valued at Rs.16 lakhs in 1932-33 to 177,273 gallons valued at Rs.19 lakhs in 1933-34. Of the total imports in the former year, France supplied 35%, the United Kingdom 28%, Italy 17% with lesser values from Spain and Portugal. The United Kingdom share, of course, represents re-exports from the four producing countries.

Paper and Pasteboard.—There has been a setback to the slight recovery last year, the total import aggregating 2,563,606 cwt. valued at Rs.263 lakhs as compared with 2,639,549 cwt. valued at Rs.286 lakhs in 1932-33 and 2,740,400 cwt. valued at Rs.372 lakhs in 1929-30. The following table shows the percentage shares of the principal countries in the total imports :—

—	1913–14 (pre-war year).	1930–31.	1931–32.	1932–33.	1933–34.
	%	%	%	%	%
United Kingdom ...	56·2	31·2	30·2	27·8	33·7
Norway	5·1	15·0	10·3	14·2	15·2
United States	·8	4·5	4·5	2·8	2·2
Sweden	3·2	10·4	11·3	14·5	12·7
Netherlands	2·5	7·0	6·4	4·9	4·3
Japan	1·0	3·9	3·9	5·6	4·7
Germany	17·3	9·7	11·0	10·5	7·7
Austria...	8·3	10·3	14·3	10·1	9·7
Other Countries ...	5·6	8·0	8·1	9·6	9·8
Total	100	100	100	100	100

The improvement in the United Kingdom share is satisfactory and is due to some extent to the preference.

Packing Paper.—The total trade receded from 324,897 cwt. (Rs.45 lakhs) to 250,268 cwt. (Rs.32 lakhs). The United Kingdom share dropped still further from Rs.3½ to under Rs.3 lakhs, as United Kingdom mills, working on imported raw material, find it almost impossible to compete with Sweden and Norway, countries with ample supplies of cheap wood pulp adjacent to the mills.

Countries of Consignment.	1932–33.		1933–34.	
	Cwt.	Rs. (lakhs).	Cwt.	Rs. (lakhs).
United Kingdom... ...	19,395	4	14,366	3
Sweden	173,327	23	131,946	16
Norway	26,340	3	27,370	3
Germany	31,068	5	11,988	2
Netherlands	10,464	1	8,918	1
Austria	20,933	3	30,923	4
Other Countries	43,370	6	24,757	3
Total	324,897	45	250,268	32

Printing Paper.—In spite of the economic depression the demand for news printing paper grows apace and the total imports under the total classification rose from 679,493 cwt. (Rs.83 lakhs) to 770,582 cwt. (Rs.84 lakhs).

Countries of Consignment.	1932–33.		1933–34.	
	Cwt.	Rs. (lakhs).	Cwt.	Rs. (lakhs).
United Kingdom... ...	44,665	9	46,339	9
Sweden	62,474	7	74,547	7
Norway	230,019	24	248,831	23
Germany	60,911	9	61,973	8
Netherlands	35,980	5	42,118	5
Belgium	4,989	1	5,087	1
Austria	152,099	17	147,123	15
Japan	2,745	1	8,209	1
Other Countries	85,611	10	136,355	15
Total	679,493	83	770,582	84

Here again, the United Kingdom has not been able to make any progress against the competition of Scandinavia and Austria in newsprint and Austria, Germany and Holland in miscellaneous printing papers.

Writing Paper and Envelopes.—There is a preference on most items and the United Kingdom has managed to maintain its position in a reduced trade. United Kingdom manufacturers are well organised with local branches, but find it difficult to compete with Indian mills, which enjoy a protection of 1¼ annas per lb. on writing paper. The statistics were :—

Countries of Consignment.	1932–33.		1933–34.	
	Cwt.	Rs. (lakhs).	Cwt.	Rs. (lakhs).
United Kingdom... ...	33,343	15	34,735	15
Sweden	10,518	2	14,812	2
Norway	38,701	8	49,368	9
Germany	10,803	3	5,606	2
Netherlands	11,726	2	8,884	1
Japan	12,188	2	10,617	2
Other Countries ...	32,374	7	27,333	5
Total	149,653	39	151,355	36

Miscellaneous.—

—	1931–32.	1932–33.	1933–34.
	Rs. (lakhs).	Rs. (lakhs).	Rs. (lakhs).
Old newspapers in bags and bales ...	34	42	41
Other kinds of Paper	25	28	29
Paper Manufactures	10	11	13

The valuable trade in old newspapers is recovering and in 1932-33 the United Kingdom supplied 86% and the U.S.A., whose competition has been less severe since 1930-31, supplied 13%. Other kinds of paper are drawn from the United Kingdom (23%), Sweden (15%), Norway (14%), Germany (14%), Austria (9%) and lesser values from Belgium, France, Czechoslovakia and the United States. The United Kingdom provides 44% of the paper manufactures, the balance being drawn from Germany, Sweden, the U.S.A. and Japan.

Chemicals and Chemical Preparations (excluding Chemical Manures and Medicines).—The remarkable manner in which this vast trade has been maintained in the face of all obstacles is evidenced by the fact that the record imports were Rs.279 lakhs in 1929-30 and the aggregate figures for last year totalled Rs.270 lakhs. The present imports are three times the value of the average of the last five pre-war years. This outstanding development may be attributed firstly to the development of Indian industries in which chemicals constitute the raw material of manufacture and, secondly, to the ceaseless sales, service and research activities of the admirably organised United Kingdom and German groups, whose representatives are constantly stimulating demand and seeking new outlets. The following statement shows the position of the principal countries during the years 1931-32 and 1932-33, the last years for which details of provenance are available :—

Principal Countries of Consignment.	1931-32. *Rs. (lakhs).*	1932-33. *Rs. (lakhs).*
United Kingdom	1,41	1,40
Germany	47	40
Italy	15	15
U.S.A.	12	14
U.S.S.R. (Northern)	2	2
U.S.S.R. (Southern)	5	8
Finland	2	2
Japan	6	13
Netherlands	6	7
Belgium	3	4
Kenya Colony	4	4
Java	—	4
France	4	6
Total Imports (all sources)	2,57	2,71

The next table gives the percentage share of the principal countries of consignment over a series of years covering both the pre-war and post-war periods :—

—	1913–14 (pre-war year).	1914–19 (war average).	1930–31.	1931–32.	1932–33.	1933–34.
	%	%	%	%	%	%
United Kingdom	74·7	70·4	54·0	54·8	51·6	55·2
Germany... ...	12·4	·7	18·3	18·1	14·9	12·7
U.S.A.	·3	5·5	5·2	4·6	5·4	5·8
Italy	5·2	2·8	7·3	5·9	5·6	5·7
Kenya Colony ...	—	·3	2·3	1·5	1·6	1·7
Norway	·5	·5	1·6	·8	·3	·3
Japan	1·5	16·7	1·7	2·3	4·9	8·4
Other Countries...	5·4	3·1	9·6	12·0	15·7	10·2
Total ...	100	100	100	100	100	100

Unfortunately, detailed figures for 1933-34 are not yet available, but it is hoped that—with the aid of the 10% preference on a wide range of items—the United Kingdom percentage will at least be maintained. Imports of the main United Kingdom specialities, viz., soda ash and caustic soda, are equal to last year, but increased competition in soda compounds is being met from the U.S.S.R. and recently from Japan. The progress made by Japan in the Indian market for all chemicals is shown by Japanese imports of Rs.3½ lakhs in 1928-29, Rs.5 lakhs in 1929-30, Rs.4 lakhs in 1930-31, Rs.6 lakhs in 1931-32 and Rs.13 lakhs in 1932-33. It is anticipated that the 1933-34 figures will be on an even greater scale. The following table shows the total imports under each of the main headings during the past two years :—

	1932-33.	1933-34.
	Rs. (lakhs).	*Rs. (lakhs).*
Acids	7	8
Bleaching Powder	9	9
Carbide of Calcium	7	6
Copper Sulphate	3	4
Disinfectants	7	7
Glycerine	3	4
Potassium Chlorate	11	12
Sodium Bicarbonate	8	9
Sodium Carbonate	65	64
Sodium Cyanide	3	3
Caustic Soda	34	36
Sulphur	19	21

Dyes obtained from Coal-Tar.—Imports were :—

Description.	1932-33. *Rs. (lakhs).*	1933-34. *Rs. (lakhs).*
Alizarines—		
Dry	*	†
Moist—		
(not exceeding 16%)	2	2
(over 16% but not exceeding 20%)	11	14
(exceeding 20%)	4	4
Anilines—		
Congo Red	11	7
Coupling dyes of the naphthol group, naphthols, rapid fast colours (rapid salts) and bases ...	30	30
Other salts	11	9
Vat Dyes—		
Indigo	16	16
Other sorts—		
Paste	8	5
Powder	40	47
Sulphur Black	11	13
Metanil Yellow	4	4
Others	69	60
Total of dyes obtained from coal tar	2,17	2,11

* Rs.29,546. † Rs.56,838.

The next table indicates the principal sources of supply during the years 1931-32 and 1932-33 :—

Principal Countries of Consignment.	1931-32. *Rs. (lakhs).*	1932-33. *Rs. (lakhs).*
United Kingdom	25	33
Germany	1,70	1,36
Switzerland	15	17
Italy	5	8
U.S.A.	11	8
France	4	10
Japan	*	3
Total Imports (all sources)	2,33	2,17

* Rs. 34,806.

The consolidation and extension of the United Kingdom position during the past few years has been remarkable. It has synchronised with a steady decline in supplies from the U.S.A. and some diminution in arrivals from Germany. The United Kingdom makers now take second place in the Indian market and, with the recent improvement and stability in prices, market conditions are much more healthy.

Soap.—The total imports fell still further in value from Rs.82½ lakhs in 1932-33 to Rs.78 lakhs in 1933-34, but the total quantities rose slightly from 296,341 cwt. to 303,413 cwt. due to increased takings of toilet soap. This decline from the peak level of Rs.171 lakhs per annum in the first five post-war years is most disturbing.

The fall has been accentuated in the case of household and laundry soaps and is due, firstly, to increased production in India and, secondly, to the reduction in purchasing power. As was stated last year, the revenue import duty of 25% has had a strong protective effect and has brought about the establishment of scores of small soap factories all over India. Most of them produce soap which is not comparable with the imported article, but in times of restricted purchasing power and strong national sentiment, they are able to sell their brands against the imported product which is loaded in price with a 25% import duty. The leading United Kingdom group are now producing certain brands from their own factories in India within the tariff wall, a development which is likely to grow. The import statistics are :—

Description.	1932–33.		1933–34.	
	Cwt.	Rs. (lakhs).	Cwt.	Rs. (lakhs).
Household and laundry soap	244,730	49	244,874	44
Toilet soap	43,812	31	52,016	32
Other sorts	7,799	3	6,523	2
Total Imports	296,341	83	303,413	78
of which from—				
United Kingdom	248,063	70	234,210	63
Other Countries	48,278	13	69,203	15
Total	296,341	83	303,413	78

The United Kingdom makers still remain *facile princeps* so far as household and laundry soaps are concerned owing to the excellence of their productions and to the efficient sales and follow-up organisation. In 1932-33 the only competition experienced was that of France with 17,168 cwt. valued at Rs.2¾ lakhs. During the past year, however, Japanese soap at very low prices appeared in the market and, as a protective measure, standard flat specific duties of Rs.4 per cwt. on all household and laundry soap when imported in plain bars of not less than one pound in weight and Rs.6/8/- per cwt. on all other sorts of household and laundry soap, were imposed by the Indian Tariff (Amendment) Act in December, 1933. This will indirectly afford some protection to United Kingdom manufacturers of the medium and higher grade products.

So far as toilet soaps are concerned, the duties are now 35% standard and 25% preferential, with a minimum specific duty of Rs.20 per cwt. on the standard rate. In 1932-33 the United Kingdom supplied 79%, the U.S.A. 13%, Japan just over 1% and Germany 1%. U.S.A. competition in the higher-grade branded goods, which are widely advertised and intensively sold, fell away during the period of depreciated sterling, but with the fall in the dollar in 1933, is reappearing with renewed strength. It is likely that Japanese competition will be insistent in the future.

Paints and Painters' Materials.—*Paints and Colours.*—The total imports advanced from 340,449 cwt. (Rs.70.26 lakhs) to 369,815 cwt. (Rs.70.28 lakhs) but is still well below the 1929-30 figure of 492,701 cwt. valued at Rs.114 lakhs. This is not surprising in view of the establishment of efficient works in this country by half a dozen of the leading United Kingdom makers, who are rapidly extending the range of their productions. The import position is as follows :—

Countries of Consignment.	1932-33.		1933-34.	
	Cwt.	Rs. (lakhs).	Cwt.	Rs. (lakhs).
United Kingdom... ...	160,652	43	179,417	47
Germany	40,077	9	49,450	8
Japan	56,977	7	46,576	6
U.S.A.	4,889	2	5,819	2
Other Countries ...	77,854	9	88,553	7
Total	340,449	70	369,815	70

Japanese importations which had steadily advanced in five years from Rs.2 to Rs.7 lakhs are likely to be checked by the imposition in December, 1933, under the terms of the Indian Tariff (Amendment) Act, 1934, of the following minimum specific duties :—

	Per cwt.
(*a*) Red lead (all sorts)	Rs.4/12/-
(*b*) White lead (all sorts)	Rs.5/12/-
(*c*) Zinc white (genuine)	Rs.6/-
(*d*) Zinc white (reduced)	Rs.4/4/-
(*e*) Paints, other sorts, moist	
in packing of 1 lb. and over	Rs.8/8/-
in packing of ½ lb. and over, but less than 1 lb.	Rs.11/4/-
in packing of ¼ lb. and over, but less than ½ lb.	Rs.17/-
in packing of less than ¼ lb.	Rs.24/-

These specific minima apply only to the standard rate of duty of 30% which is imposed on foreign goods and are not applicable to United Kingdom goods, which enjoy the preferential rate of 20%. Consequently, United Kingdom products are likely to derive an indirect advantage.

Painters' Materials.—These comprise :—

Description.	1932-33.		1933-34.	
	Cwt.	Rs. (lakhs).	Cwt.	Rs. (lakhs).
Genuine turpentine ...	1,788	1	2,766	1
Turpentine substitute ...	2,166	*	2,174	†
Varnish	29,526	14	27,781	14
Other Kinds	not recorded.	7	not recorded.	7
Total	—	22	—	22

* Rs. 38,218. † Rs. 40,010.

In 1932-33, the United Kingdom supplied fully two-thirds of the genuine turpentine, small quantities being drawn from Germany, Norway and Sweden. There is also competition from the indigenous industry at Jallo in the Punjab. The United Kingdom supplies the whole of the unimportant quantities of turpentine substitute. The important varnish trade, however, is shared by the United Kingdom (81%), Germany (5%), Belgium (4%), Holland (3%) and the U.S.A. (3%). The main demand for varnishes is from the railway carriage shops and it is significant that one or two of the Indian branch works of United Kingdom manufacturers are now securing a share of their orders.

Drugs and Medicines (excluding Chemicals and Narcotics).—The principal items enumerated under this comprehensive heading are :—

Description.	1932-33. *Rs. (lakhs).*	1933-34. *Rs. (lakhs).*
Asafoetida	1	0·5
Camphor	25	23
Codliver Oil	1	1
Preparations of Opium and Morphia	1	1
Proprietary and Patent Medicines	38	31
Quinine Salts	26	32
Saccharine	2	2
Total Imports of all kinds	1,86	1,93

The imports of camphor are shared by Japan, Germany, Italy and Switzerland. There is no United Kingdom interest. Asafoetida is entirely derived from Persia. The small trade in codliver oil is drawn from the United Kingdom and Norway; Holland and Germany supply small quantities. Preparations of opium and morphia are mainly drawn from the United Kingdom with small quantities from Germany and France. The valuable trade in proprietary and patent medicines is highly competitive, the United Kingdom in 1932-33 contributing 40%, Germany 19%, France 15%, the U.S.A. 14% and Italy 4%. Of the quinine salts, the United Kingdom supplied 30%, Germany 40%, Java 11%, with lesser proportions from Holland, Switzerland and the United States. Saccharine is drawn from the United Kingdom (25%), Switzerland (39%) and the U.S.A. (27%). Of the total trade in drugs in 1932-33, the United Kingdom contributed 32%, Japan 10%, U.S.A. 11%, Germany 23%, Italy 4%, Switzerland 2% with lesser proportions from France, Java, Holland and Norway.

The detailed figures for 1933-34 are not yet available so that it is not yet possible to determine the extent to which United Kingdom suppliers have benefited by the 10% preference on proprietary and patent medicines and most other drugs in which they

are interested. The need for a Pure Foods and Drugs Act is still insistent both in the interests of the Indian consumer and of all honest traders. As I have repeatedly stated, United Kingdom manufacturers suffer acutely from the competition of those who sell drugs which do not equal the standard of the British Pharmacopoeia.

Apparel (excluding Hosiery, Boots and Shoes).—The following table shows the imports under each main heading :—

Article.	1932-33. *Rs. (lakhs).*	1933-34. *Rs. (lakhs).*
Apparel (including drapery, uniforms and accoutrements)	40	42
Gold and silver thread	10	6
Hats, caps, bonnets and hatters' ware ...	17	19
Lametta	6	4
Secondhand clothing	8	8
Waterproofed clothing	3	2
Total Imports of all kinds	84	81

In 1932-33 the United Kingdom supplied 40% of the apparel, the principal competitors being Japan (45%), Germany (5%) and lesser values from China, the U.S.A., Italy and France. Imports from Japan are expanding steadily, but compete more keenly with cheap Continental than with United Kingdom goods. Gold and silver thread was drawn from France (67%) and Germany (27%). Hats, caps, etc., were supplied by the United Kingdom 21%, Japan 40%, Italy 16% and Czechoslovakia 16%. Lametta is a virtual monopoly of Germany and France. As regards second-hand clothing, the U.S.A. is gradually ousting the United Kingdom from this trade, the figures in 1932-33 being the United Kingdom (20%) and the U.S.A. (79%). The small arrivals of waterproofed clothing are almost entirely drawn from the United Kingdom.

The provenance of the total imports was :—

Countries of Consignment.	1932-33. *Rs. (lakhs).*	1933-34. *Rs. (lakhs).*
United Kingdom	24	21
Germany	9	8
France	10	5
Italy	3	3
Japan	25	30
U.S.A.	7	7
Other Countries	6	7
Total	84	81

By the terms of the Indian Tariff (Textile Protection) Act, 1934, apparel, which had hitherto been assessed at 30% standard and 20% preferential, is now grouped under section 238G of the tariff together with all hosiery; haberdashery; millinery; drapery; hats, caps, bonnets and hatters' ware not otherwise specified at 35% standard and 25% preferential.

Hosiery.—*Cotton.*—A further recovery is to be noted in 1933-34 :—

	1932-33. *Rs. (lakhs.)*	1933-34. *Rs. (lakhs.)*
Stockings and Socks	12	10
Underwear	53	62
Other Sorts	2	5
Total	67	77
of which from		
United Kingdom	*	1
Japan	61	73
U.S.A.	1	†
Other Countries	5	3
Total	67	77

* Rs.61,111 † Rs.53,503

The average values of the hosiery imported, e.g.—3 shillings per dozen singlets—3d. each! gives the clue to the reason why the United Kingdom cannot compete in the bulk trade and merely supplies high grade hosiery for European consumption. Even in this trade there is strong competition from the U.S.A. Japan has effectually displaced the Continent from the bazaar trade but competes with the Indian knitting industry, for whose protection a minimum specific duty of 12 annas per lb. on cotton undervests, knitted or woven, and cotton socks or stockings was imposed from 1st May, 1934.

Woollen.—Despite a recovery in the total imports from Rs.7 to Rs.9 lakhs, they are still only 40% of the figures for 1929-30.

1931-32.	1932-33.	1933-34.
Rs.6,69,114	Rs.6,92,501	Rs.8,82,362

In 1932-33 the United Kingdom supplied 66% and Japan 29%. United Kingdom manufacturers have hitherto enjoyed some 85% of the trade, but the entry of Japan into the trade last year has upset market prices for both imported and indigenous hosiery. In order to afford protection to the local industry an alternative minimum specific duty of 18 annas per pound was added to the general rate of 35% by the Indian Tariff (Amendment) Act, 1934, and came into force in December, 1933.

Haberdashery and Millinery.—The trade receded from the figures of last year, due to reduced imports of lace and embroidery and miscellaneous items. The following headings are included in the classification :—

Article.	1932-33. *Rs. (lakhs.)*	1933-34. *Rs. (lakhs.)*
Lace and embroidery	21	16
Towels not in the piece...	10	10
Other sorts	37	28
Total	68	54

The provenance of the imports was as follows :—

Principal Countries of Consignment.	1932-33. *Rs. (lakhs.)*	1933-34. *Rs. (lakhs.)*
United Kingdom	14	13
Germany	13	10
France	2	1
Switzerland	4	2
Italy	10	7
Japan	18	17
Other Countries	7	4
Total	68	54

In 1932-33 the United Kingdom supplied 14% of the lace and embroidery, Switzerland 13%, Italy 33% (Swiss goods exported from Genoa and Venice), Germany 24% and Austria 5%. Of the towels not in the piece, 96% consist of cheap towels from Japan of a non-competitive grade. The United Kingdom contributed 3% of high grade towels. The comprehensive heading of " other sorts " was shared by the United Kingdom (30%), Germany (21%), Japan (20%), Italy (8%), Czechoslovakia (5%), the U.S.A. (4%) and France (3%).

By the terms of the Textile Protection Amendment Act of 1934 imported embroidered all-overs are now assessed to import duty at 35% standard and 25% preferential; towels take the ad valorem rate of duty applicable to the fabric of which the article is wholly or mainly made (if of cotton, this would be 50% standard and 25% preferential) and unspecified descriptions of haberdashery and millinery are rated at 35% standard and 25% preferential.

Boots and Shoes.—The high standard rate of duty of 30% or 5 annas per pair, whichever is higher, has checked to some extent the imports of Japanese rubber-soled shoes. The aggregate trade

fell from 7,881,520 pairs (Rs.52 lakhs) to 7,313,246 pairs (Rs.47 lakhs). The total imports were classified, according to type, as follows :—

Description.	1932–33.		1933–34.	
	Pairs.	Rs. (lakhs).	Pairs.	Rs. (lakhs).
All leather	424,910	14	349,036	12
Rubber soled—				
With canvas uppers ...	6,414,283	30	5,920,962	29
With uppers of leather or other material.	35,945	*	103,742	1
All rubber	813,109	3	654,452	3
Of other materials ...	193,273	3	285,054	2

* Rs. 26,898.

In 1932-33 the average price of rubber-soled shoes with canvas uppers was just under 9d. per pair.

The provenance of the imports was as follows :—

Countries of Consignment.	1932–33.		1933–34.	
	Pairs.	Rs. (lakhs).	Pairs.	Rs. (lakhs).
United Kingdom... ...	206,854	6	128,538	6
Germany	93,085	1	45,938	1
Czechoslovakia	268,462	5	376,994	6
Japan	6,891,760	32	6,619,651	32
Other Countries ...	421,359	8	142,125	2
Total Imports ...	7,881,520	52	7,313,246	47

With the exception of some £1,000 worth of rubber-soled shoes with canvas uppers and £2,500 worth of shoes of other materials, the United Kingdom interest is concentrated in the provision of leather footwear, of which, in 1932-33, she supplied 37%, Italy (transit goods from Czechoslovakia) 32%, Czechoslovakia 20% and Germany 5%. The United Kingdom shipments are now little more than one-fourth of their volume in 1928-29, having been ousted by the cheap but attractive products of the Bata Factory at Zlin, Czechoslovakia. There is little sign as yet of any effective United Kingdom reply to the Bata competition, nor, it may be added, is there any sign of the United Kingdom manufacturers taking any steps to overhaul their local organisation or even to investigate conditions on the spot. The Bata Factory is now well-established at Calcutta and a widespread distributing organisation has been improvised.

Leather.—The imports of unmanufactured leather were :—

Description.	1932-33. *Rs. (lakhs).*	1933-34. *Rs. (lakhs).*
Hides, tanned or dressed	2	1
Skins, tanned or dressed	13	13
Unwrought	4	4
Leather Cloth (including artificial leather)	4	5

The imports of tanned or dressed hides were drawn in 1932-33 from the United Kingdom, U.S.A. and Germany. Dressed or tanned skins were obtained from the U.S.A. (51%), Germany (23%) and the United Kingdom (8%). Unwrought leather is supplied by the U.S.A. (42%), the United Kingdom (25%) and Germany (21%). In leather cloth, however, thanks to active selling and organisation, the United Kingdom makers secured 53%, the U.S.A. 21% and France 21%. From the point of view of the United Kingdom manufacturer, the more important trade is that of leather goods :—

Description.	1932-33. *Rs. (lakhs).*	1933-34. *Rs. (lakhs).*
Bags and Trunks	1	1
Pickers	5	5
Picking bands and straps	8	6
Roller skins	6	5
Saddlery and Harness	*	†
Other Sorts	7	6

* Rs.41,543 † Rs.35,334.

The United Kingdom in 1932-33 supplied 58% of the relatively unimportant trade in bags and trunks, the balance being drawn from Japan and Germany. Leather specialities for the jute and cotton mills are largely a United Kingdom preserve, although competition is increasing from Holland and Germany in pickers, and, in picking bands and straps, the United Kingdom supplied 56%, France 17% and Holland 13% with lesser values from Germany and Belgium. Practically the whole of the roller skins and of the saddlery and harness is imported from the United Kingdom. Of fancy manufactured leathers (other sorts), the United Kingdom sent 59%, the U.S.A. 20% and Germany 9%. The following table shows the origin of the total imports of leather and leather goods :—

Principal Countries of Consignment.	1932-33. *Rs. (lakhs).*	1933-34. *Rs. (lakhs).*
United Kingdom	24	22
Germany	6	5
U.S.A.	11	8
Other Countries	9	11
Total	50	46

Belting for Machinery.—*Cotton Belting.*

Countries of Origin.	1932-33. *Rs. (lakhs).*	1933-34. *Rs. (lakhs).*
United Kingdom	6	5
Other Countries	1	*
Total	7	5

* Rs.61,368.

In 1932-33, " other countries " included Germany (Rs.32,739) and the U.S.A. (Rs.31,000).

Leather Belting.—The total trade has fallen by one-third since 1929-30 and receded still further from Rs.26 to Rs.23 lakhs. The slight signs of revival in many Indian industries will, doubtless, be reflected in next year's imports :—

Countries of Origin.	1932-33. *Rs. (lakhs).*	1933-34. *Rs. (lakhs).*
United Kingdom	16	13
U.S.A.	7	8
Other Countries	3	2
Total	26	23

The fall in the dollar exchange at the end of 1933 has helped to re-establish U.S.A. supplies of high-grade belting, which are actively distributed and compete keenly. The falling-off in the United Kingdom share is disappointing. " Other Countries " in 1932-33 included Japan (Rs.98,000 worth) and the Netherlands (Rs.79,000). As belting is regarded by the Government of India as a raw material of industry, there is no preferential duty and the market is largely a low price market.

Belting of other materials (including coir).

Countries of Origin.	1932-33. *Rs. (lakhs).*	1933-34. *Rs. (lakhs).*
United Kingdom	14	13
Germany	2	1
U.S.A.	1	1
Other Countries	3	3
Total	20	18

" Other Countries " in 1932-33 included Japan (Rs.2¼ lakhs) and small quantities from Canada and Belgium.

Bobbins.—The trade sustained a further setback from Rs.28 to Rs.22 lakhs, which compares with an import of Rs.40 lakhs' worth in 1929-30 and an average of Rs.66 lakhs in the first five post-war years. Activity in the Indian cotton industry is still very

patchy. Ahmedabad Mills have for some time been fully engaged but the Bombay Mills are still having a difficult time and many of them are closed.

Countries of Origin.	1931–32.	1932–33.	1933–34.
	Rs. (lakhs).	Rs. (lakhs).	Rs. (lakhs).
United Kingdom	24	19	14
Germany	3	4	3
Other Countries ...	5	5	5
Total	32	28	22

The United Kingdom share has been steadily declining for some years owing to increasing competition from Germany and Japan. In 1929-30 United Kingdom suppliers secured 88% of the trade but, in spite of the excellence of their productions, which are made from seasoned timber, they suffered from political feeling on the part of certain Indian Millowners coupled with increased activity on the part of Japanese suppliers, whose shipments rose from Rs.2 lakhs in 1928-29 to Rs.5 lakhs in 1932-33.

Books and Printed Matter.—Even the imports of literature of all kinds have been adversely affected by the reduction in buying power, aggregate imports at Rs.49 lakhs comparing with Rs.72 lakhs in 1929-30.

1931-32.	1932-33.	1933-34.
Rs.53,38,433	Rs.46,37,677	Rs.49,32,514

In 1932-33 the United Kingdom contributed 84%, the U.S.A. 8% and Germany 2%. United Kingdom publishing and scholastic supply firms are adequately organised and have been successful in maintaining their position during a difficult period.

Stationery (excluding Paper).—The total trade suffered a set-back from Rs.72 to Rs.66 lakhs, which showed a drop of Rs.39 lakhs from the peak of 1929-30.

Countries of Consignment.	1931–32.	1932–33.	1933–34.
	Rs. (lakhs).	Rs. (lakhs).	Rs. (lakhs).
United Kingdom	36	33	36
Germany	16	21	14
Japan	5	9	9
United States	3	2	2
Other Countries ...	8	7	5
Total	68	72	66

10% preference is granted on most items (excluding paper and slate pencils). The United Kingdom percentage of 54 compares favourably with 45 in 1932-33 and 53 in 1929-30. It is hoped that much of the Continental and U.S.A. competition will be displaced. Imports from Japan are so low-priced as to be beyond the competitive range. " Other Countries " include Sweden, Italy and Austria.

Tobacco.—The remarkable decline in the total imports of tobacco continues as a result of the fall in the imports of cigarettes from Rs.213 lakhs (£1,600,000) in 1929-30 to Rs.19 lakhs (£143,000) in the year under review. The additional emergency import duties have placed many brands of imported cigarettes beyond the diminished purchasing power of the population. To meet this price difficulty and also to conform to the growing " Swadeshi " sentiment, the Companies concerned have switched over the manufacture of most of their popular brands from their United Kingdom factories to their Indian establishments. The resulting decline by approximately £1½ millions has a serious effect on the United Kingdom position and also on Indian revenues. In the 1934-35 budget in an attempt to restore at least a portion of the revenue on imported cigarettes, the following revised import duties were imposed from March 29, 1934 :—25% ad valorem and in addition either Rs.8/2/- per thousand or Rs.3/4/- per pound, whichever is higher. It is hoped that these rates may have the effect of re-stimulating the imports of some of the popular brands.

The following are the principal forms in which tobacco was imported :—

Description.	1931-32.	1932-33.	1933-34.
	lbs.	lbs.	lbs.
Unmanufactured tobacco	2,844,919	5,115,672	4,187,024
Cigars	21,358	15,030	17,146
Cigarettes	1,435,980	831,571	592,995
Tobacco for pipes and cigarettes.	129,433	48,629	50,391
Other Sorts	45,766	40,729	46,981
Total	4,477,456	6,051,631	4,894,537

One of the first results of the transfer of manufacture to Indian factories has been the increased importations of leaf tobacco. Here again, import duties on unmanufactured tobacco were increased on the 29th March, 1934, from Rs.2 standard and Rs.1/8 preferential, if the produce of a British Colony, to Rs.3/4 standard and

Rs.2/12 preferential, if the produce of a British Colony. The provenance of the imports of cigarettes was as follows :—

Countries of Consignment.	1931–32.	1932–33.	1933–34.
	Rs. (lakhs).	Rs. (lakhs).	Rs. (lakhs).
United Kingdom	49	26·3	16·6
China	2·7	1	0·3
Egypt	0·6	0·3	0·3
U.S.A.	0·5	0·5	0·5
Other Countries ...	0·2	0·9	1·3
Total	53	29	19

Even allowing for the effects of the adjusted import duties and recovery in the purchasing power of the market, it is to be feared that there will be a permanent reduction of approximately £1,000,000 sterling in the United Kingdom export trade.

Rubber Manufactures—*Rubber Tyres.*—(1) *Pneumatic Motor Covers.*—Notwithstanding an increase from 291,760 to 311,302 in the number of covers imported, the values contracted from Rs.126 to Rs.113 lakhs showing a tendency to use a cheaper type of tyre.

Countries of Consignment.	1931–32.	1932–33.	1933–34.
	Rs. (lakhs).	Rs. (lakhs).	Rs. (lakhs).
United Kingdom	31	45	71
Germany	8	8	4
France	8	6	3
Italy	12	14	4
Canada	7	5	7
U.S.A.	66	40	16
Other Countries ...	3	8	8
Total	1,35	1,26	1,13

U.S.A. and Continental tyres have been displaced by the United Kingdom article. Most U.S.A. Companies are now supplying the Indian market from their branch factories in the United Kingdom in order to secure the benefit of the preference. The quantitive rise in the United Kingdom share from 107,528 to 197,411 covers was even greater than that of the values and shows a reduction in average prices. Mention should be made of the recent entry into the market of specially manufactured wheels and axles fitted with rubber tyres for the use of bullock carts. This equipment not only gives a 50% greater load with the same tractive effort, but entails less fatigue on the animals, increases the pace of the traffic and effects a reduction in the expenditure on road maintenance. In order to stimulate this entirely new source of revenue, the Government of India in May, 1934, reduced the import duty on this special

equipment to 15% standard and 5% preferential. The equipment is being adopted with enthusiasm by P.W.D. and other users of transport and it is hoped that, with the combined effects of the lowered duty and the mass production of large numbers, it may be possible to bring the cost down to a figure which will attract the main body of individual bullock cart owners. There are estimated to be from 5 to 9 million bullock carts in India and it will be realised that this far-sighted development on the part of the leading United Kingdom tyre manufacturer may gradually effect a revolution in Indian transport conditions.

(2) *Pneumatic Motor Cycle Covers.*—In view of the relatively small number of motor cycles in use in India, the trade in tyres is of small dimensions :—

	1932-33.	1933-34.
	Rs.	*Rs.*
From United Kingdom	51,402	63,083
From U.S.A.	7,605	2,420
From Other Countries	21,816	12,593
Total	80,823	78,096

(3) *Pneumatic Cycle Covers.*—The improvement in the trade in pedal cycles is reflected in an expansion in the import of tyres :—

	1932-33.	1933-34.
	Rs. (lakhs).	*Rs. (lakhs).*
From United Kingdom	12	15
From Germany	1	*
From France	1	1
From Other Countries	5	5
Total	19	21

* Rs.36,748.

There is evidence to show that United Kingdom suppliers are more than maintaining their position even against low-priced imports from Japan, which in 1932-33 totalled Rs.3¾ lakhs, but which have not shown any marked increase during the past year.

(4) *Solid Rubber Tyres for Motor Vehicles.*—The trade has been fairly well maintained in view of the extended use of pneumatic tyres on heavy vehicles :—

	1932-33.	1933-34.
	Rs. (lakhs).	*Rs. (lakhs).*
From United Kingdom	1·8	2·4
From Germany	0·3	0·6
From U.S.A.	1	0·3
From Other Countries	*	†
Total	3	3·3

* Rs.6,144. † Rs.5,987.

(5) *Tubes.*—The statistics for the past two years are :—

	1932-33.	1933-34.
	Rs. (lakhs).	*Rs. (lakhs).*
Pneumatic Motor Tubes	18	15
Pneumatic Motor Cycle Tubes	0·27	0·20
Pneumatic Cycle Tubes	10	11

Other Manufactures of Rubber (except Apparel and Boots and Shoes).—The total imports aggregated :—

1931-32.	1932-33.	1933-34.
Rs. (lakhs).	*Rs. (lakhs).*	*Rs. (lakhs).*
23	22	22½

This comprehensive heading includes mechanical rubbers of all kinds such as vacuum brake fittings, rubber hose, etc., and has been seriously affected by the industrial depression. In 1932-33 the United Kingdom secured 38%, the U.S.A. 22%, Germany 20% and Japan 9%. Japanese competition is growing rapidly and is likely to prove embarrassing. During the last two years, the competition of vacuum brake material, etc., made in the Straits Settlements has been severe. The prices are remarkably low and compete with those quoted by the Japanese.

Instruments, Apparatus, Appliances and parts thereof.—This comprehensive classification is made up as follows :—

	1932-33.	1933-34.
Description.	*Rs. (lakhs).*	*Rs. (lakhs).*
Electrical Apparatus	2,34	2,31
Musical Instruments	24	30
Optical Instruments	7	8
Cinematograph films—raw	11	15
Cinematograph films—exposed	19	28
Photographic Apparatus	31	29
Scientific Instruments	14	15
Surgical Instruments	14	13
Wireless Apparatus	10	10
Other kinds	21	23
Total Imports of all kinds	3,85	4,02

In 1932-33 the United Kingdom contributed 50% of the total, Germany 17%, U.S.A. 13%, Japan 6% and lesser values came from Holland, Italy, Belgium, Austria, France, Czechoslovakia and Switzerland. Analysing the various sub-headings we find that :—

Musical Instruments.—The United Kingdom in 1932-33 supplied 58%, Germany 22%, Switzerland 8%, Japan 3% and the U.S.A. 2%. German competition is principally in band instruments and talking machine accessories. Switzerland provides gramophone accessories. Japan sends miscellaneous instruments and a few talking machine accessories. The U.S.A. sends some talking machines and accessories. The United Kingdom share would be

very much greater were it not that the principal United Kingdom group of gramophone manufacturers now produce the bulk of their records in their Indian factories.

Optical Instruments.—The trade formerly held by Germany is rapidly passing to Japan. The imports in 1932-33 were derived as follows :—United Kingdom 8%, Japan 65%, Germany 17%. Imports from Japan have quadrupled in five years. If the growing United Kingdom optical instrument industry could be aided with a preference, it would have a good chance of capturing the trade in high-grade instruments now held by Germany and France.

Cinematograph Films—Raw.—The steady expansion in this trade shows the rapid development of the Indian film industry. In 1932-33, the last year for which details are available, the imports were :—

Countries of Consignment.	*Length in ft.*	*Rs. (lakhs).*
United Kingdom	5,618,792	2
Germany	11,933,492	6
Belgium	4,206,384	1½
U.S.A.	1,901,611	1
Total Imports (from all sources) ...	25,579,887	11

It is anticipated that when the 1933-34 figures are available the United Kingdom share will be found to have expanded as a result of the 10% preference. The principal market is in Bombay.

Cinematograph Films—Exposed.—The expansion during the last three years from Rs.17 lakhs to nearly Rs.28 lakhs shows the rapidly increasing vogue of the cinema. In 1932-33 the imports were derived as follows :—

Countries of Consignment.	*Length in ft.*	*Rs. (lakhs).*
United Kingdom	1,311,100	3·27
Ceylon	2,487,802	2
U.S.A.	4,584,647	12
Germany	165,814	0·4
Total Imports (from all sources) ...	9,501,023	19

When the detailed returns for 1933-34 become available, it is confidently expected that the United Kingdom share will be considerably increased at the expense of the U.S.A. The technique of the United Kingdom productions has improved enormously of recent years and it has been proved conclusively that there is a great and growing market in India for high-grade, wholesome films depicting typical life and scenes in the United Kingdom. In my last report, reference was made to the enterprise of Messrs. Humayun Properties Ltd., Calcutta, in creating a demand throughout India for the best United Kingdom productions. Their success continues and they maintain a constant display not only in their own theatre in Calcutta but in a rapidly increasing circuit of cinemas throughout

India, Burma and Ceylon. I have repeatedly referred to the disinclination of the United Kingdom producers to second such efforts by sending out representatives or, in fact, taking any really adequate steps to cultivate the market. U.S.A. producers are very active with an elaborate organisation supervised by resident representatives. India is undoubtedly one of the most promising outlets in the Empire for British films and I appeal to United Kingdom producers to take some steps to cultivate the market, which will amply repay their efforts. There is no preferential duty on United Kingdom exposed films at present, but it is to be hoped that the Government of India may be prevailed upon to encourage the display of sound, wholesome British productions by granting a fiscal advantage.

Imports of films from Ceylon continue to expand at a rapid rate. In 1932-33, their declared value was Rs.0·08 per foot as compared with an average declared value in the case of imports from the U.S.A. of Rs.0·26 per foot. These would seem to be second-hand films.

Photographic Apparatus.—Although the trade contracted by about Rs.2 lakhs as compared with 1932-33, it is well maintained at Rs.28 lakhs compared with Rs.31½ lakhs in 1929-30. This may be attributed to the spread of the use of photography among Indians encouraged by the service organisation of manufacturers' branches. In 1932-33 the United Kingdom supplied 43%, the U.S.A. 26% and Germany 24%. The preferential duty is having the effect of inducing U.S.A. suppliers to meet the Indian demand from their branch works in the United Kingdom.

Scientific and Philosophical Instruments.—The trade expands steadily despite the depression. The heading includes a wide variety of instruments and apparatus such as laboratory apparatus, surveying instruments, meteorological instruments, nautical instruments, drawing and mathematical instruments and measuring and recording instruments. United Kingdom imports now receive a 10% preference. In 1932-33 the United Kingdom supplied 64%, Germany 28% and the U.S.A. 4%.

Surgical Instruments.—Imports have registered a steady fall since 1929-30. During 1932-33 the United Kingdom supplied 53%, Germany 30% and the U.S.A. 9%. Imports from Japan show an increasing tendency and were valued at Rs.56,381. The trade in low-priced German instruments is mainly among the large numbers of up-country Indian surgeons, to whom price is the main desideratum provided that the instruments are just good enough for the purpose.

Radio Apparatus.—Although the total imports show a slight reduction, it must be remembered that the figures last year were swollen by the imports of commercial plant for the extensions to the main transmitting and receiving stations operated by the Indian Radio and Cable Communications Co., Ltd. Imports during

1933-34 were mainly of radio receiving apparatus and it is noteworthy that the United Kingdom share is reduced to the advantage of the U.S.A., Holland and Japan. The following are the figures for the past two years :—

Countries of Consignment.	1932-33. *Rs. (lakhs).*	1933-34. *Rs. (lakhs).*
United Kingdom	8·39	5·72
Germany	0·49	0·57
Netherlands	0·65	0·98
U.S.A.	0·61	1·79
Other Countries	0·23	1·07
Total	10·37	10·13

The State Broadcasting Service operated by the Government of India through the two stations at Bombay and Calcutta is now operating at a profit. Revenue, both from licences and from the share of the import duties, shows such a satisfactory expansion that the inauguration of a third main transmitting station at Delhi towards the end of 1934 is planned. It is hoped, ultimately, to provide India, as funds become available, with main stations at Bombay, Calcutta, Madras, Allahabad, Delhi, Lahore and Nagpur. The more extensive relaying from local stations of the Empire Broadcasting Service maintained by the B.B.C. should result in much greater advantage being taken of that great Imperial asset. Owing to atmospherics during certain months of the year, the reception of the United Kingdom programmes on short-wave sets is not satisfactory. It is generally recognised, however, that when the minor technical difficulties are overcome, the Empire radio broadcast will open up a new vista of amusement and instruction alike to Europeans and educated Indians and will be an Imperial link of the first importance.

Mention should be made of the steps now being taken by the Governments of the Punjab and the North-West Frontier Province and by the Madras Municipality to inaugurate a system of local broadcasting of news, agricultural information and instruction, and simple talks to a selected number of villages. This forward step is being taken with the active support of the Indian Village Welfare Association. The Marconi Company have shown enterprise by the grant of a transmitter and fifteen receiving sets to the North-West Frontier Province, while the British Broadcasting Company have offered a transmitter to the Punjab Government. One or two other United Kingdom manufacturers are taking a close interest in this development, which has such vast potentialities. Provision of finance and the preliminary technical difficulties in devising sufficiently " fool-proof " receiving sets are the limiting factors at the moment, but there seems little doubt that, in a few years time, this bold, far-sighted development will revolutionise the dissemination of news throughout the country and will provide a valuable

market for radio material. United Kingdom manufacturers, with the one or two exceptions already noted, are adopting a sceptical attitude but would do well to keep in touch with a movement which cannot fail to develop a market for their apparatus. Their Dutch and U.S.A. competitors are fully alive to the possibilities while, during the past year, the influx of cheap Japanese components contains a threat of more formidable competition from that quarter.

Electrical Apparatus.—There has been a slight reduction in the total trade from Rs.234 to Rs.231 lakhs, which should be compared with the peak of Rs.361 lakhs in 1929/30. The following statement gives the description and value of the several classes of electrical apparatus imported during the past three years :—

——	1931–32.	1932–33.	1933–34.
	Rs. (lakhs).	Rs. (lakhs).	Rs. (lakhs).
Electric Fans and Parts thereof ...	19	22	20
„ Wire and Cables	60	59	63
Telegraph and Telephone Instruments...	5	5	12
Electric Lamps and Parts thereof ...	54	55	50
Batteries	11	13	14
Carbons, electric	3	3	3
Accumulators	9	9	8
Electric lighting accessories and fittings, including switches.	8	8	7
Meters	7	10	8
Electro-medical apparatus, including X-ray apparatus.	3	3	3
Switchboards (other than telegraph or telephone).	3	2	3
Unenumerated	41	45	40
Total Imports of all kinds	2,23	2,34	2,31

Analysing these statistics, we find that so far as electric fans are concerned, the total trade fell from Rs.22¼ lakhs to Rs.19¾ lakhs, the United Kingdom share being reduced from Rs.13¼ lakhs to Rs.12¾ lakhs. That of Italy remained constant at Rs.4¾ lakhs and American imports rose from Rs.¼ lakh to nearly Rs.1 lakh. Imports from " other countries " however, fell sharply from Rs.4¼ lakhs to Rs.1½ lakhs. Under the heading of electric wires and cables, the total imports advanced from Rs.59 lakhs to Rs.63 lakhs, the United Kingdom share being increased from Rs.41 lakhs to Rs.47 lakhs and that of Belgium from Rs.2 lakhs to Rs.2½ lakhs. On the other hand, arrivals from Germany fell from Rs.6 lakhs to Rs.4¼ lakhs, those from Japan from Rs.7 lakhs to Rs.6 lakhs, whereas imports from Holland remained fairly stationary at Rs.1¼ lakhs. Arrivals from the U.S.A. were valued at Rs.1 lakh. Telegraph and telephone apparatus amounting to Rs.12½ lakhs was imported, of which the United Kingdom supplied Rs.9 lakhs. The

imports of gas-filled electric bulbs rose from Rs.14½ lakhs to Rs.15 lakhs. Arrivals from the United Kingdom advanced from Rs.8 lakhs to Rs.8¾ lakhs and those from Holland from Rs.3¼ lakhs to Rs.3½ lakhs. Imports of vacuum electric bulbs totalled Rs.16¾ lakhs in 1932/33 and Rs.16 lakhs in the period under review. The United Kingdom share advanced from Rs.5½ lakhs to Rs.6¼ lakhs, whereas that of Holland fell from Rs.4½ lakhs to Rs.4 lakhs and Japan from Rs.3¼ lakhs to Rs.3 lakhs. Imports of electric bulbs for automobiles amounted to Rs.¾ lakh, of which Rs.21,000 from Holland, Rs.21,000 from Japan and Rs.9,000 from the United Kingdom. In the case of electric bulbs for torches, the total trade fell from Rs.3¼ lakhs to Rs.2½ lakhs. Japanese shipments dropped from Rs.1⅛ lakhs to Rs.¾ lakh, whereas those from the U.S.A. rose slightly from Rs.1⅛ lakhs to Rs.1¼ lakhs. Imports from the United Kingdom were negligible at Rs.5,000.

The total trade in batteries rose from Rs.13 lakhs to Rs.13½ lakhs. Imports from the United Kingdom fell from Rs.3½ lakhs to Rs.2 lakhs whereas those from the U.S.A. advanced from Rs.7 lakhs to Rs.8 lakhs, the share of " other countries " also increasing from Rs.2 lakhs to Rs. 3¼ lakhs. The trade in electric lighting accessories and fittings, including switches, amounting to Rs.7½ lakhs, was contributed to by the United Kingdom Rs.3½ lakhs, Germany Rs.2¼ lakhs, the U.S.A. Rs.½ lakh and " other countries " Rs.1¼ lakhs. The trade in meters fell from Rs.10 lakhs to Rs.7¾ lakhs, the United Kingdom share remaining fairly steady at over Rs.5 lakhs, while there was a heavy fall in imports from Germany from Rs.2½ lakhs to Rs.¾ lakh. Electro-medical apparatus (including X-ray apparatus) amounting to Rs.3¼ lakhs was obtained from the United Kingdom Rs.85,000, the U.S.A. Rs.75,000 and " other countries " Rs.1¾ lakhs. Practically the whole of the Rs.3¼ lakhs' worth of switchboards arrived from the United Kingdom. The imports of electrical goods and apparatus, not enumerated, fell from Rs.41½ lakhs to Rs.34¾ lakhs. The United Kingdom share fell slightly from Rs.21½ lakhs to Rs.19¾ lakhs, while that of Germany dropped from Rs.7½ lakhs to Rs.5¼ lakhs and the U.S.A. from Rs.8½ lakhs to Rs.5¼ lakhs.

The provenance of the total imports was as follows :—

Principal Countries of Consignment.	1932-33. *Rs. (lakhs).*	1933-34. *Rs. (lakhs).*
United Kingdom	1,22	1,31
Germany	34	25
Netherlands	11	11
Belgium	3	3
Italy	6	6
Japan	17	15
United States	26	24
Other Countries	15	16
Total Imports	2,34	2,31

In the face of German and U.S.A. competition the 10% preference has been of benefit. The United Kingdom percentage rose from 52 to 56. Italian competition persists in fans. German competition occurs under practically every head but principally in fans, cables, lamps, accessories and miscellaneous apparatus. Dutch imports of lamps are considerable, but arrivals of Dutch cables and wiring are falling-off. The U.S.A. sends mainly batteries, lamps, electro-medical apparatus and unenumerated items. Japan, in 1932/33, provided Rs.6 lakhs' worth of bare electrolytic copper wire, vacuum electric bulbs, lighting accessories and fittings and miscellaneous items.

Earthenware and Porcelain.—The classification includes :—

Articles.	1932-33. *Rs. (lakhs).*	1933-34. *Rs. (lakhs).*
Pipes of Earthenware	*	†
Sanitary Ware	5	6
Other kinds of Earthenware	14	13
Electrical Porcelain	1	‡
Other kinds of Porcelain	29	24
Total Imports	49	43

* Rs.5,902. † Rs.8,595. ‡ Rs. 59,879.

Imports of earthenware pipes are now confined to specialities. Of the sanitary earthenware, the United Kingdom in 1932/33 supplied 84%, the only serious competition being from Germany (11%). There have been rumours of Japanese competition during the past year, but the leading United Kingdom makers are actively represented and their goods enjoy a high reputation for quality and service. Other kinds of earthenware were, in 1932/33, contributed by the United Kingdom (47%), Japan (34%) and Germany (6%). Imports from Belgium were mostly German goods shipped from Antwerp.

The simple types of insulators are now made in India. Electrical porcelain is only imported for extra high-tension transmission and for special work. Other kinds of porcelain, including cheap tableware, common crockery, etc., were imported, in 1932/33, from Japan (91%), the United Kingdom (3%) and Germany (2%). The Indian market, which was formerly such a valuable one for Staffordshire makers, is now closed to them so far as the trade in cheap goods is concerned since they cannot possibly compete with Japanese prices. Heavy minimum specific duties were recently imposed on imports of foreign domestic earthenware, china and porcelain with the object of protecting the indigenous pottery industry. United Kingdom makers may obtain some indirect benefit in competition with the Continent in medium-grade articles from these duties coupled with the 10% preferential margin, but it is doubtful whether they will make much headway against Japanese competition.

The total imports of earthenware and porcelain in 1933/34 were derived as follows:—

Countries of Consignment.	1932-33. *Rs. (lakhs).*	1933-34. *Rs. (lakhs).*
United Kingdom	12	12
Germany	3	2
Japan	31	26
Other Countries	3	3
Total Imports	49	43

Glass and Glassware.—The following statement shows the types of imported glass and glassware:—

Description.	1932-33. *Rs. (lakhs).*	1933-34. *Rs. (lakhs).*
Bangles	40	27
Beads and false pearls	12	14
Bottles and phials	24	21
Funnels, globes and glass parts of lamps ...	7	5
Scientific glassware	1	1
Sheet and plate glass	23	21
Tableware	5	5
Other glassware	30	28
Total Imports	1,42	1,22

The severe drop in the imports of glass bangles, beads and trinkets is due, first and foremost, to the severely reduced purchasing power of the people resulting from the agricultural depression and, second, to the substitution of Indian-made bangles and beads. The provenance of the total imports was as follows:—

Countries of Consignment.	1932-33. *Rs. (lakhs).*	1933-34. *Rs. (lakhs).*
United Kingdom	12	11
Germany	18	13
Belgium	15	11
Austria	1	2
Czechoslovakia	23	20
Italy	2	2
Japan	65	57
Other Countries	6	6
Total	1,42	1,22

The United Kingdom has no interest in the imports of glass bangles or of beads. Japan is rapidly displacing Czechoslovakia from the trade in the former item while beads are drawn from Japan, Czechoslovakia and Italy.

The trade in bottles is one which deserves cultivation by United Kingdom makers. In 1932-33 the imports of sodawater bottles (totalling over Rs.6 lakhs) were supplied by the United Kingdom (53%), Germany (39%) and Japan (4%). For the first time for many years United Kingdom supplies exceeded arrivals from Germany. Other kinds of bottles were drawn from the United

Kingdom (5%), Japan (64%), Germany (20%) and Sweden (4%). The trade in funnels, globes and glass parts of lamps was shared by Germany (53%), Czechoslovakia (14%), Japan (14%), Austria (9%) and the United Kingdom a meagre 3%. The small imports of scientific glassware were drawn from Germany (61%) and the United Kingdom (26%). In plate and sheet glass, however, the United Kingdom supplied 13%, mainly the finer qualities, while Belgium (60%) shipped large quantities of cheap window glass. Imports from Japan accounted for a further 12%, the balance being divided fairly equally between Germany, Holland and Czechoslovakia. Tableware was obtained from the United Kingdom (6%), Japan (77%), Germany (7%), and Belgium (4%). Miscellaneous glassware was drawn from Japan (61%), Germany (14%), the United Kingdom (12%) and lesser values from Belgium, France, Czechoslovakia, Austria and the U.S.A. Glassware is not subject to preferential duties.

Building and Engineering Materials (other than Iron, Steel and Wood).—The reduced activity in new construction is shown in the decline from Rs.134 lakhs in 1929-30 to Rs.64 lakhs in the year under review. The principal items in the classification are the following :—

Description.	1931–32.	1932–33.	1933–34.
	Rs. (lakhs).	Rs. (lakhs).	Rs. (lakhs).
Asphalt	21	27	22
Bricks (other than firebricks)	*	†	‡
Firebricks	1	1	1
Portland Cement	38	27	20
Cement (other kinds)	2	2	2
Tiles	13	12	12
Other kinds	9	8	7
Total Imports	84	77	64

* Rs. 5,604. † Rs. 19,619. ‡ Rs. 7,573.

A slowing-down in new road construction and maintenance is shown in the reduced imports of asphalt. Detailed figures for 1933-34 are not yet available but in the previous year the imports were drawn from Mexico, which appeared for the first time in the trade returns, (34%), the U.S.A. (33%), Egypt (21%) and the United Kingdom (4%). Imports from Trinidad, despite the preference, were negligible, but as most B.W.I. asphalt is treated in the United Kingdom and is at present not eligible for preference on re-export thence to India, it suffers from a severe handicap. The Indian demand for asphalt is likely to expand rapidly " pari passu " with the progress of the development programme for roads.

The trifling imports of bricks were mainly drawn from the United Kingdom. Firebricks were all supplied by the United

Kingdom. The important trade in tiles is shared by Italy (33%), Japan (30%), Belgium (12%) and the United Kingdom (14%).

Cement.—The imports of cement were drawn from :—

Countries of Consignment.	1932–33.		1933–34.	
	Tons.	Rs. (lakhs).	Tons.	Rs. (lakhs).
United Kingdom	34,288	17	32,068	14
Germany	778	*	183	†
Japan	39,274	8	27,485	6
Other Countries	8,289	4	6,179	2
Total	82,629	29	65,915	22

* Rs.36,425. † Rs.9,045.

Burma and Southern India are the principal markets for imported cement as they are at present sufficiently remote from Indian cement works not to experience their competition. A market also exists for special cements for under-water dock work, etc., etc.: otherwise, the Indian demand is met from the local works, which produce cement fully equal to British Standard Specification at a reasonable price. Of the imports of cement in 1933-34, 64,031 tons valued at Rs.20 lakhs consisted of Portland Cement and 1,884 tons valued at Rs.2 lakhs included other kinds of cement.

Hardware (excluding Cutlery and Electro-Plated Ware).—Although last year's improvement was almost maintained, the aggregate of Rs.288 lakhs in 1933-34 compares very unfavourably with that of Rs.507 lakhs in 1929-30 and the peak of Rs.524 lakhs in 1927-28. The following table gives the details during the past two years:—

Description.	1932-33. *Rs. (lakhs).*	1933-34. *Rs. (lakhs).*
Agricultural Implements	6	6
Buckets of tinned or galvanised iron	**	‖
Builders' hardware	27	21
Domestic hardware, other than enamelled ironware	9	8
Enamelled Ironware	23	22
Gas Mantles	9	5
Implements and Tools (other than agricultural implements and machine tools)	35	39
Lamps, metal	41	40
Lamps, glass	*	‡
Parts of lamps other than glass	5	4
Safes and strong boxes of metal	†	§
Stoves	4	4
Other Sorts	1,40	1,39
Total Imports	2,99	2,88

* Rs.20,970. † Rs.33,559. ‡ Rs.53,765. § Rs.22,795.
** Rs. 26,207. ‖ Rs. 23,756.

The provenance of the imports during the same years was :—

Countries of Consignment.	1932-33. *Rs. (lakhs).*	1933-34. *Rs. (lakhs).*
United Kingdom	91	98
Sweden	15	16
Germany	1,08	86
Austria	5	4
Japan	30	35
U.S.A.	17	23
Other Countries	33	26
Total	2,99	2,88

The next statement gives the percentage shares of the leading supplies over a period of years :—

—	1913–14 (pre-war year).	1929–30.	1930–31.	1931–32.	1932–33.	1933–34.
	%	%	%	%	%	%
United Kingdom	57	35	36	37	30	34
Germany... ...	18	33	30	29	36	30
United States ...	10	12	12	10	6	8
Japan	1	5	6	6	10	12
Other Countries...	14	15	16	18	18	16
Total ...	100	100	100	100	100	100

The effects of the 10% preferential margin on all hardware, ironmongery and tools (excluding agricultural implements not otherwise specified, buckets of tinned or galvanised iron and machine tools) are apparent in the displacement of German goods in certain of the higher-grade products for the bazaar trade. The intensified German competition referred to in my last report has received a definite check as it is also being encroached upon by the Japanese products at the lower end of the trade. The slight recovery in imports from the U.S.A. occurred in the latter half of the year since the fall of the dollar.

The following notes give the statistical position in each section of the trade :—

Agricultural Implements.—In 1932-33 the United Kingdom supplied 88%, the U.S.A. 6% and Germany 4%. The implements included in this heading are almost exclusively the better class hoes, forks, etc. used on the European-managed tea gardens of Assam and Southern India. The revival in the tea industry following the success of the restriction scheme should result in a considerable expansion of this business which is less than half the values of 1928-29. So far as the market for the cheaper types of kodalies, mamooties, pickaxes, hammer heads, etc. is concerned,

this is being increasingly met by the products of the Agricultural Implements Co. of Jamshedpur (a branch of the Tata Iron and Steel Co. Ltd.).

Galvanised Buckets.—Imports have virtually ceased for some years so far as the Indian Peninsula is concerned. Prior to 1929-30, Burma consumed from £10,000 to £15,000 worth per annum, but even this trade fell to little more than £1,000 worth last year, of which the United Kingdom supplied practically the whole.

Builders' Hardware such as Locks, Hinges, Door Bolts, etc.—The imports in 1932-33 were drawn from the United Kingdom (18%), Germany (56%) and Sweden (20%). The cheaper types of German products, which have hitherto been so successful in meeting the bazaar demand, which is always present in India provided the price is sufficiently low, are likely to be seriously affected by the increasing domestic production of the simpler forms such as Tower bolts, plain locks, etc., which has received a great stimulus from the present high level of import duties. It is hoped that the preferential duties will divert a considerable portion of the better class Swedish and German trade to British works.

Domestic Hardware.—Arrivals from the United Kingdom in 1932-33 represented 25%, Germany 32%, the U.S.A. 12% and Japan 13%. Imports from the U.S.A. remain fairly stationary, but Japanese shipments are increasing. In the case of both builders' and domestic hardware, the 10% preference should stimulate United Kingdom exports if only the fiscal advantage is followed up by an intensive sales effort.

Enamelled Ironware.—There has been a slight setback in the total trade. The year 1932-33 was remarkable for an increase in arrivals from Japan from Rs.9 lakhs to Rs.16 lakhs. Japan now supplies 70% of the trade, Czechoslovakia 13%, Germany 8% and the United Kingdom 6%. The heavy minimum specific duties imposed in December, 1933, on all foreign imports by the terms of the Indian Tariff Amendment Act, 1934, may check the imports of the cheaper varieties and so protect the Indian aluminium hollow-ware industry, with the products of which they compete. They are not likely to result in the substitution of the Wolverhampton product to any considerable extent in view of the continued disparity in prices.

Gas Mantles.—The trade has fallen considerably since 1932-33 but compares relatively favourably with the imports before the slump. In 1932-33 Germany shipped 74%, the U.S.A. 9% and the United Kingdom 9%. The principal markets are Bombay and Calcutta.

Implements and Tools.—The total imports show a satisfactory expansion by Rs.3 lakhs. In 1932-33 the United Kingdom supplied 52%, the U.S.A. 19% and Germany 18%. Lesser values were

contributed by Sweden, France, Japan and Austria. The fiscal advantage should give British makers an opportunity of recovering much of the trade in the higher grade tools, which has been lost to the U.S.A. and Sweden. It should also be possible to recover a larger share in the better grade bazaar varieties at the expense of Germany. A much more intensive sales effort, however, is required and more interest should be taken in the supervision and support of agents. As I have repeatedly stated, in these times of intense competition it is not sufficient to make a sale, cash against documents, to a merchant in London, and then expect him to do the rest.

Metal Lamps.—The trade has fallen to one-half of the values in 1928-29 due to the depression. Unfortunately, Birmingham exporters have been almost excluded from the market, firstly by the competition of U.S.A. lamps, but of late years by Germany. The imports in 1932-33 were drawn from Germany (87%, representing 2,787,169 lamps valued at Rs.36 lakhs), Austria (5%, representing 127,239 lamps valued at Rs. 2 lakhs) and the United Kingdom (2% representing 21,305 lamps valued at Rs.87,000). U.S.A. competition has fallen almost to zero, but Sweden sent Rs.77,000 worth.

Safes and Strong Boxes of Metal.—The import trade has fallen away to less than £2,000 worth due to the substitution of serviceable safes manufactured by local firms such as the Godrej and Boyce Manufacturing Co. of Bombay and the increasing use of Indian strong boxes made at Multan and elsewhere. Bankers' strong rooms and the highest grades of safes are still supplied by United Kingdom makers when required, but there has been little demand during the past few years owing to the cessation of bank extensions.

Stoves.—The imports have fallen from Rs.10 lakhs in 1929-30 to Rs.4½ lakhs in 1932-33, of which Sweden provided 64%, the United Kingdom 15%, Austria 9% and Germany 7%. Swedish stoves of the " Primus " and other wickless types are very popular and are imported at an average price of Rs.3/8/- say 5s. 3d. Bombay and Calcutta are the principal markets.

Other Sorts.—This miscellaneous classification accounts for one-half of the total imports of hardware. It was shared in 1932-33 by the United Kingdom (40%), Germany (24%), Japan (8%), the U.S.A. (4%), Czechoslovakia (4%) with lesser values from Sweden, Belgium, France, Austria and Italy.

Cutlery.—The classification distinguishes between pruning knives —a United Kingdom trade which is not subject to a preferential duty—and ordinary cutlery, the imports of which from the United Kingdom are subject to a preference of 10%. Imports rose from

Rs.24 to Rs.25½ lakhs last year, but are still Rs.16 lakhs below the figures for 1929-30.

——	1931–32.	1932–33.	1933–34.
	Rs. (lakhs).	Rs. (lakhs).	Rs. (lakhs).
Pruning Knives	1	1	1½
Other Kinds	20	23	24
Total Imports	21	24	25½
Of which from—			
United Kingdom	6	7	8
Germany	13	14	14
Other Countries	2	3	3½
Total Imports	21	24	25½

The United Kingdom supplies the whole of the pruning knives, the demand for which will, it is hoped, increase with increasing prosperity among the tea gardens.

The much more important bazaar trade in cutlery has, however, for many years been a preserve of Germany, but it is likely that Japan will obtain a constantly increasing share of the lowest quality imports while, with the aid of the preferential duty, Sheffield makers should at last secure a larger portion of the medium-grade trade. They have always enjoyed the market for the best quality products.

Polishes.—After declining continuously since 1929-30, the total imports expanded last year from Rs.20 to Rs.22 lakhs. The classification is made up as follows :—

Article.	1931–32.	1932–33.	1933–34.
	Rs. (lakhs).	Rs. (lakhs).	Rs. (lakhs).
Leather Polish	12	12	12
Metal Polish	4	4	4
Wood Polish	1	*	1
Other Sorts	2	3	5
Total	19	20	22

* Rs. 46,973.

In 1932-33, the United Kingdom supplied 93% of the total. The U.S.A. provided 2% of the leather polish, 3% of the metal polish, 17% of the wood polish and 20% of other sorts. There is, at present, no preferential duty on polishes.

Arms, Ammunition and Military Stores.—The fluctuations of the imports under this heading on account of the Government of India were as follows :—

1931–32.	1932–33.	1933–34.
Rs. (lakhs).	*Rs. (lakhs).*	*Rs. (lakhs).*
23	38	23

These are, of course, exclusively drawn from the United Kingdom.

There is, however, a much larger import on private account which is made up as follows :—

Description.	1932-33. *Rs. (lakhs).*	1933-34. *Rs. (lakhs).*
Shotgun Cartridges (filled)	8	7
Rifle and other Cartridges (filled)	7	4
Cartridge Cases (empty)	*	†
Explosives	15	20
Firearms and parts thereof	12	10
Gunpowder	1	1
Other Sorts	1	1
	44	43

* Rs.28,141. † Rs.22,746.

Filled cartridge cases were obtained in 1932-33 from the United Kingdom (90%), the United States (2%), Germany (2%) and Belgium (5%). Small arms and shotgun ammunition of United Kingdom manufacture is popular and is actively distributed. The trifling values of empty cartridge cases were supplied by the United Kingdom (66%) and Germany (28%). The valuable trade in explosives has increased by one-third owing to greatly increased activity in the Kolar goldfields and in the non-ferrous metal mines of Burma. The United Kingdom provided 80%, Belgium 14% and Germany 4%. Belgium supplies gelatine dynamite (Rs. 1⅓ lakhs) and small values of blasting fuses, detonators and dynamite. German competition is solely in blasting fuses. Of the firearms and parts thereof, the United Kingdom contributed 80%, Germany 6%, Belgium 5% and the U.S.A. 4%. The trade has fallen to less than one-half of its volume in 1928-29 due to reduced purchasing power and to the more rigid application of the Arms Act.

Brushes and Brooms.—This heading includes :—

Description.	1932-33. *Rs. (lakhs).*	1933-34. *Rs. (lakhs).*
Paint and Varnish Brushes	2	2
Toilet Brushes	7	4
Other Brushes	3	5
Brooms	*	†
Total Imports	13	11

* Rs.29,140. † Rs.28,944.

Paint and varnish brushes in 1932-33 were drawn from the United Kingdom (57%), Germany (39%), with small values from Austria and Italy. As regards toilet brushes, however, the position is reversed, the United Kingdom only supplying a negligible value (16%), while the U.S.A. contributed 35%, Germany 29% and Japan 17%. It is a noteworthy fact that retail distributors of toilet articles such as brushes push the sale of the U.S.A. article, which goes to show that U.S.A. exporters are more generous in their terms and that a better retailer's profit is obtainable on the branded and well-advertised U.S.A. product. Other brushes for industrial and general use are supplied by the United Kingdom (47%), Germany (19%), Japan (23%) and the U.S.A. (5%). The small trade in brooms is shared by the Straits Settlements and the United Kingdom. It is to be hoped that the preferential margin assisted by more active advertising and sales distribution will improve the future United Kingdom share of this trade.

Toys and Requisites for Games and Sports.—This quasi-luxury trade, which had fallen from Rs.65 lakhs in 1929-30 to Rs.37 lakhs in 1931-32, has recovered to Rs.47 lakhs in 1932-33 and Rs.53 lakhs in the year under review. The totals were :—

1931-32.	1932-33.	1933-34.
Rupees.	*Rupees.*	*Rupees.*
37,04,346	47,32,699	53,35,325

Detailed figures for 1933-34 are not yet available, but in 1932-33 toys accounted for Rs.29 lakhs and were derived from the United Kingdom (12%), Japan (69%), Germany (13%) and the U.S.A. (3%). Imports from Japan more than doubled in value and are rapidly ousting cheap German toys from the market. It is feared that the 10% preference will be of little use against Japanese prices, which are beyond competition. The United Kingdom may, however, be able to deflect some trade from Germany and U.S.A.

Playing cards of a total value of Rs.11½ lakhs were imported from Belgium (37%), Japan (22%), the U.S.A. (19%) and the United Kingdom (19%), while requisites for games and sports were imported to the value of Rs.6½ lakhs and were drawn from the United Kingdom (70%), Norway (11%), Germany (9%) and lesser values from the U.S.A., Japan and France. Although the past few years have witnessed a remarkable growth of sports and games among Indians, the demand for cheap requisites is being increasingly met from Indian factories at Sialkot and other towns in the Punjab. India exported last year over Rs.5 lakhs' worth.

Tea Chests (Entire or in Sections).—The total imports closely follow the fluctuating fortunes of the Indian tea industry and are now on the upward curve :—

Countries of Consignment.	1931–32.	1932–33.	1933–34.
	Rs. (lakhs).	Rs. (lakhs).	Rs. (lakhs).
United Kingdom	37	34	38
Russia	*	†	‡
Finland	2	3	2
Esthonia	6	5	8
Other Countries ...	5	6	5
Total	50	48	53

* Rs. 31,597. † Rs. 32,561. ‡ Rs. 36,988.

The imports of metal tea chests into Southern India, which averaged over Rs.2½ lakhs during the previous three years, fell to a trifling Rs.35,000 in 1932-33. Imports of wooden chests from Germany have expanded from Rs.1¾ lakhs in 1930-31 to Rs.3½ lakhs in 1932-33, but these were probably goods in transit from Esthonia and Finland. Arrivals of " Momi " chests from Japan rose from Rs.64,000 in 1929-30 to Rs.96,000 in 1932-33. Although the United Kingdom still secures 72% of the trade, competition from the Baltic countries is growing.

Umbrellas and Umbrella Fittings.—The imports of complete umbrellas, including parasols and sunshades, were as follows :—

Countries of Consignment.	1932–33.		1933–34.	
	No.	Rs. (lakhs).	No.	Rs. (lakhs).
United Kingdom... ...	28,380	1	30,802	1
Other Countries ...	280,573	2	708,072	3
Total	308,953	3	738,874	4

The trade is still less than half its volume in 1928-29. The heading of " other countries " included in 1932-33 Rs.1⅓ lakhs' worth from Japan and Rs.27,000 worth from France.

Umbrella Fittings.—Here again, imports are approximately one-half the total in 1928-29. They were derived as follows :—

Countries of Consignment.	1931–32.	1932–33.	1933–34.
	Rs. (lakhs).	Rs. (lakhs).	Rs. (lakhs).
United Kingdom... ...	5	3	3
Germany	11	7	5
Japan	10	13	14
Other Countries ...	2	.2	*
Total	28	25	22

* Rs.72,777.

Japanese imports are rapidly outstripping German supplies and have also displaced Italian and French goods. It is to be feared that the disparity between the prices of United Kingdom and Japanese goods is so wide as to render the preferential duty ineffective.

Jewellery and Plate of Gold and Silver (excluding Imitation Jewellery, Precious Stones and Pearls Unset).

Article.	1931–32.	1932–33.	1933–34.
	Rs. (lakhs).	Rs. (lakhs).	Rs. (lakhs).
Jewellery	13	30	2
Plate of Gold and Silver	6	4	3
Total	19	34	5

The fall in the statistics for the year has been so remarkable as to cast doubts on the accuracy of the figures. In 1932-33 the imports of jewellery were drawn from the United Kingdom (98%) and very small consignments from Ceylon, France and Italy. The United Kingdom provided 77% of the gold and silver plate, France 10%, Germany 3% and negligible values from Hongkong, Japan and the U.S.A.

Electro-Plated Ware.—Imports have improved slightly but are still handicapped by reduced purchasing power and high duties.

1931-32.	1932-33.	1933-34.
Rupees.	*Rupees.*	*Rupees.*
2,99,842	2,32,016	2,70,783

The United Kingdom, in 1932-33, supplied 83% and Germany 13%.

Carriages and Carts and Parts thereof.—The total imports were :—

1931-32.	1932-33.	1933-34.
Rupees.	*Rupees.*	*Rupees.*
9,00,933	5,83,710	5,91,647

In 1932-33 the United Kingdom contributed 59%, Japan (largely jinrickshas) 11%, Hongkong 12%, China 6% and Germany 4%.

Oil Cloth and Floor Cloth.—The total trade, valued at Rs.12 lakhs in 1929-30, fell from Rs.7 to Rs.6 lakhs :—

1931-32.	1932-33.	1933-34.
Rupees.	*Rupees.*	*Rupees.*
5,54,149	7,02,612	5,80,658

In 1932-33 the United Kingdom supplied 51%, Germany 10% and France 5%. The preferential duty should enable the United Kingdom to secure a larger share of the trade.

Furniture and Cabinet Ware.—The trade is reduced to less than half the 1929/30 figures :—

1931-32.	1932-33.	1933-34.
Rupees.	*Rupees.*	*Rupees.*
20,10,720	17,64,802	16,88,513

In 1932/33 the United Kingdom sent 35%, Germany 19%, France 10%, Belgium 5%, Japan 6% and the U.S.A. 4%. Bedsteads are mainly obtained from the United Kingdom with some competition from the U.S.A. (camp cots, etc.). Of the wooden furniture (other than bedsteads), the United Kingdom only supplies 34%, the balance being provided by France (28%), Japan, Estonia, Poland, Czechoslovakia and Germany. Germany now sends most of the mouldings, having displaced Italy. Of the furniture (other than bedsteads) made of materials other than wood, the United Kingdom sent 48%, Japan 12%, Belgium 8%, Germany 7%, France 6% and the U.S.A. 5%.

Manures (excluding Oil Cakes).—The imports of fertilisers after falling from Rs.99 lakhs in 1929/30 to Rs.36 lakhs in 1931/32, recovered to Rs.53 lakhs in 1932/33 and remained steady at Rs.52½ lakhs in the year under review. The principal items were :—

Description.	1932–33.		1933–34.	
	Tons.	Rs. (lakhs).	Tons.	Rs. (lakhs).
Nitrogenous.				
Nitrate of Soda ...	1,240	2	2,217	3
Sulphate of Ammonia	37,612	38	29,800	29
Others	407	*	890	1
Potassic.				
Muriate of Potash ...	3,386	5	3,112	4
Others	433	1	717	1
Phosphatic.				
Superphosphate ...	3,478	2	3,000	2
Others	1,088	†	2,109	2
Compounds.				
Ammonium phosphate	1,007	2	3,804	5
Fish Manures	1,675	1	1,007	1
Others	2,350	2	2,890	4
Total Imports ...	52,676	53	49,546	52

* Rs.37,081. † Rs.50,925.

In 1932/33 the United Kingdom supplied 73%, including practically all the sulphate of ammonia, which was mainly imported into Southern India and Bengal to fertilise rice cultivation. Germany sent 5%, principally muriate of potash. Belgium contributed 5%, largely sulphate of ammonia, nitrate of soda, superphosphate and other phosphates. Holland sent 25% of the superphosphate and Japan 43%. Fish manures were drawn from Arabia. Egypt supplied 21% of the muriate of potash, sharing this trade with Germany, Spain and Palestine.

As I stated last year—and the position remains the same—there are clear signs that the Indian ryot is beginning to appreciate the value of fertilisers, largely as a result of the intensive propaganda campaign of the principal United Kingdom suppliers of sulphate of ammonia following upon years of persuasion on the part of officers of the agricultural departments. Unfortunately, at the present time, all agriculturists are suffering terribly from years of low prices. When the world values of agricultural products rise, however, and the ryot recovers his buying power, we may expect to see a material increase in the imports of all fertilisers and particularly of sulphate of ammonia and phosphates. It is to be hoped that the very fine pioneer work which has been carried on for years by the United Kingdom group of producers will at last bear fruit.

Matches.—The Indian market for matches, which, in the early post-war years, yielded an average annual importation of 12,725,000 gross boxes valued at Rs.177 lakhs, is now supplied by the local factories of the Swedish Match Combine, which have developed under the shelter of the tariff wall. In consequence, the imports were reduced in 1933/34 to 78,718 gross boxes valued at a paltry Rs.74,000 (little more than £5,000). These meagre imports were obtained from Sweden with small values from Japan and the United Kingdom. It should be noted, however, that although the United Kingdom is not interested in the export of matches to India, the London market has a considerable financial interest in the Indian business of the Swedish group.

Packing (Engine and Boiler) of all kinds (excluding Asbestos).—The market in normal times is worth about Rs.5 lakhs, but fell to Rs.2½ lakhs in 1932/33 and then recovered to just under Rs.3 lakhs in the year under review :—

1931-32.	1932-33.	1933-34.
Rupees.	*Rupees.*	*Rupees.*
2,51,633	2,49,203	2,86,297

The market is supplied almost entirely by United Kingdom makers, the only foreign imports in 1932/33 being Rs.10,562 from the U.S.A. and Rs.7,191 from France.

Toilet Requisites.—This comprehensive heading includes all articles for toilet use not separately classified elsewhere :—

1931-32.	1932-33.	1933-34.
Rupees.	*Rupees.*	*Rupees.*
47,79,746	58,13,685	56,61,474

It will be noted with some surprise that imports of semi-luxury articles such as these should have been so well maintained. This is due to the changed outlook of Young India, of both sexes, towards Western habits and ways and the increasing use of cosmetics, beauty preparations, etc., etc. In 1932/33 the United Kingdom

contributed 35%, the U.S.A. 30%, Japan 14%, France 7%, Germany 6% and Italy 2%. The 10% preference should be of value to United Kingdom exporters but it must be followed up by more active salesmanship and more generous treatment of local retail distributors, who now find that they can usually make a greater profit on the sale of U.S.A. goods and, consequently, take pains to push their sale. Moreover, the U.S.A. firms specialise on widely advertised branded goods, which are energetically followed up by factory representatives as well as wholesale agent. Many United Kingdom manufacturers need to display more interest in the methods of distribution, uses and ultimate destination of their products.

Articles Imported by Post (not included elsewhere).—The postal traffic has fallen-off materially in recent years partly owing to the fact that jewellery, precious stones, gold and silver thread, cigarettes and cinematograph films when imported by post and referred to Collectors of Customs for assessment are now included under their appropriate headings in the import returns. The figures for the last three years are :—

1931-32.	1932-33.	1933-34.
Rs. (lakhs).	*Rs. (lakhs).*	*Rs. (lakhs).*
2,96	2,59	2,41

In 1932/33 the United Kingdom supplied 61%, Switzerland 12%, Italy 13%, Germany 3% and France 3%. China and Japan contributed small values.

The cash-on-delivery system with the United Kingdom (known in India as the Imperial value-payable-post system), which is a great convenience to British residents in India, has fallen-off considerably during the depression. The following are the returns of C.O.D. parcels received from the United Kingdom and the Irish Free State in 1931/32 and 1932/33 :—

Year.	*Number.*	*Value.* £
1931-32	61,720	217,300
1932-33	48,218	141,490

Of these parcels, 2,255 or 4·67% of the total number were returned as undeliverable in 1932/33.

RAW MATERIALS AND SEMI-MANUFACTURED ARTICLES.

Coal.—There has been a substantial recovery after the steady decline in imports from 263,000 tons (Rs.58 lakhs) in 1927-28 to 34,800 tons (Rs.6½ lakhs) in 1932-33. The imports for the past year aggregated 56,351 tons valued at Rs.9 lakhs. The cotton mills in Bombay and Ahmedabad are now using Bengal coal as a result partly of reduced railway rates and partly of appeals for

reciprocal trading from their most important cloth market in Bengal. Imports into Karachi have also fallen to a third of their former volume. The most recent figures are :—

Countries of Consignment.	1932–33.		1933–34.	
	Tons.	Rs. (lakhs).	Tons.	Rs. (lakhs).
United Kingdom ...	15,994	3	9,776	2
Union of South Africa ...	13,516	2	34,740	5
Australia	3,015	1	6,165	1
Other Countries ...	2,275	*	5,670	1
Total	34,800	6	56,351	9

* Rs.37,180.

Coke.—The relatively unimportant imports of coke are almost equal to their volume in 1930-31 :—

—	1931–32.	1932–33.	1933–34.
Rupees	3,05,082	3,16,592	4,41,877
Tons	12,144	12,678	19,791

Burma is the only market for coke as the Indian Peninsular is served from indigenous sources. In 1932-33 Natal supplied 10,803 tons valued at Rs.2½ lakhs, the United Kingdom 1,220 tons valued at Rs.49,000 and Germany 655 tons valued at Rs.20,000.

Mineral Oils.—The following are the most recent statistics. It must be borne in mind, however, that Burma supplies enormous quantities of refined petroleum products such as kerosene, petrol and batching oils.

Kerosene Oil.—

Countries of Consignment.	1931–32.	1932–33.	1933–34.
	Rs. (lakhs).	Rs. (lakhs).	Rs. (lakhs).
U.S.S.R.	1,85	1,64	1,50
Roumania	5	23	34
Borneo	20	—	—
Persia	95	39	2
Celebes and other D.E.I. Islands ...	—	8	—
U.S.A.	1,28	18	13
Other Countries	*	2	33
Total Imports	4,33	2,54	2,32

* Rs.154.

The check to the imports of Soviet Union oil has synchronised with a corresponding increase in imports from Roumania. " Other Countries " in 1932-33 represented Sumatra.

Fuel Oils.—The imports were :—

Countries of Consignment.	1931–32.	1932–33.	1933–34.
	Rs. (lakhs).	Rs. (lakhs).	Rs. (lakhs).
Roumania	2	10	21
Persia	1,38	1,26	1,18
Straits Settlements	4	*	†
Borneo	50	51	53
Other Countries	10	16	7
Total Imports	2,04	2,03	1,99

* Rs.21,375 † Rs.47,871.

The Anglo-Persian Oil Co. Ltd. supplies the bulk of the fuel oils, half of which are imported into Bombay.

Petrol.—There has been a remarkable drop in the imports under the Customs heading of " Petroleum, dangerous, flashing below 76° Fahrenheit, including petrol, benzine and benzol " as the following totals show :—

1931-32	1932-33.	1933-34.
Rs. (lakhs).	*Rs. (lakhs).*	*Rs. (lakhs).*
1,05	37	6

In 1932-33 the imports were drawn from Sumatra (25%), Dutch New Guinea (43%), Germany (11%) and Java (6%). The reduced imports during the past two years are due to the elimination, resulting from exchange difficulties, of arrivals from the U.S.A.

Batching Oils.—The depression in the jute mills of Bengal has resulted in a further reduction of imports to a fresh low-watermark of Rs.35 lakhs.

Countries of Consignment.	1931–32.	1932–33.	1933–34.
	Rs. (lakhs).	Rs. (lakhs).	Rs. (lakhs).
Borneo (Dutch)	20	18	6
U.S.A.	17	31	28
Other Countries	—	1	1
Total	37	50	35

Other Lubricating Oils.—The United Kingdom has a direct interest in this valuable trade :—

Countries of Consignment.	1931–32.	1932–33.	1933–34.
	Rs. (lakhs).	Rs. (lakhs).	Rs. (lakhs).
United Kingdom	27	21	26
Belgium	*	9	†
U.S.A.	81	74	72
Other Countries	3	5	3
Total	1,11	1,09	1,01

* Rs. 14,942. † Rs. 54,602.

The recovery in the United Kingdom position may be attributed partly to the exchange handicap which operated against the U.S.A. during the first six months of the period and partly to the preferential duty of two annas per gallon, which has been in force since the 1st January, 1933. United Kingdom manufacturers and blenders of lubricating oils are strongly represented with a wide-spread distributing organisation. German shipments are steadily expanding and small quantities are occasionally drawn from the Dutch East Indies. The gradual development of aviation should create an increasing market for the finest grade United Kingdom lubricants.

Salt.—In 1930-31 the imports of salt attained a total of 703,640 tons but have fallen steadily since then to a total of 349,246 tons in 1933-34. Since the 31st March, 1933, the temporary additional customs duty on imported salt has been reduced to $2\frac{1}{2}$ annas per maund of $82\frac{2}{7}$ pounds avoirdupois over and above a local excise duty of Rs.1/9/-.

Principal Countries of Consignment.	1932–33.		1933–34.	
	Tons.	Rs. (lakhs).	Tons.	Rs. (lakhs).
United Kingdom	24,662	4	527	1
Germany	57,390	10	54,466	8
Spain	27,828	4	2,289	*
Aden and Dependencies ...	284,884	40	271,685	35
Egypt	39,876	6	10,552	2
Italian East Africa	103,443	14	8,982	1
Other Countries	6,041	1	745	†
Total	544,124	79	349,246	47

* Rs.31,773. † Rs.11,255.

Bengal imported 309,868 tons and Burma 39,004 tons, but arrivals in other provinces were negligible. The remarkable fall in the share of the United Kingdom during recent years is

regrettable as salt provided a most convenient form of ballast for steamers leaving Liverpool, but is inevitable in view of the determination of the Government of India to protect Indian salt production. If the import duty is applied to Aden salt, we may expect the virtual extinction of this once valuable trade.

Sugar.—The protective import duty of Rs.9/1/- per cwt. imposed by the Sugar Protection Act of 1932 has dealt a heavy blow to this great import trade, which has always been one of the mainstays of Customs revenue and which amounted to 1,003,177 tons in 1930-31. Although an Excise duty of Rs.1/5/- per cwt. was imposed by the Indian Budget of 1934-5, this is not likely to check the development of Indian factories under sound management. There are now at least one hundred modern factories operating in India and more are projected. The effects of this revolutionary development within the short space of three years receives eloquent confirmation in the following import statistics, not to mention the dwindling revenue returns.

Sugar, 23 Dutch Standard and above.

Countries of Consignment.	1931–32.	1932–33.	1933–34.
	Rs. (lakhs).	Rs. (lakhs).	Rs. (lakhs).
United Kingdom	5	14	13
Russia	21	3	—
Java	4,07	3,30	1,98
China	7	3	3
Other Countries	2	17	25
Total Imports	4,42	3,67	2,39

In 1932-33, "other countries" included an exceptional consignment of Rs.13 lakhs from Portuguese East Africa and Rs.3 lakhs' worth from Japan.

Sugar, below 23 Dutch Standard but not below 16 D.S.

Countries of Consignment.	1931–32.	1932–33.	1933–34.
	Rs. (lakhs).	Rs. (lakhs).	Rs. (lakhs).
Java	29	*	—
China	2	1	2
Japan	—	2	1
Total Imports	31	3	3

* Rs.912.

Of the imports of Java sugar in 1932-33, Bengal took 86,000 tons (29%), Bombay 87,000 tons (29%), Sind 57,000 tons (19%), Madras 41,000 tons (14%) and Burma 24,000 tons (9%).

Beet Sugar.—India's offtake of beet sugar is spasmodic, varying with the relative price of cane sugar. The imports during the past six years were as follows.—

1928-29.—8,404 tons valued at Rs.16 lakhs.
1929-30.—131,001 tons valued at Rs.225 lakhs.
1930-31.—78,119 tons valued at Rs.87 lakhs.
1931-32.—118,359 tons valued at Rs.125 lakhs.
1932-33.—40,690 tons valued at Rs.42 lakhs.
1933-34.—27,556 tons valued at Rs.28 lakhs.

The following statement shows the provenance :—

Countries of Consignment.	1931–32.	1932–33.	1933–34.
	Rs. (lakhs).	Rs. (lakhs).	Rs. (lakhs).
United Kingdom	23	24	24½
Russia	66	9	—
Poland	15	—	—
Germany	18	*	†
Other Countries	3	9	3
Total Imports	1,25	42	27½

* Rs.26,968. † Rs.6,000.

The imports are exclusively into Karachi (31,891 tons in 1932-33) and Bombay (8,779 tons in 1932-33). In 1932-33 an abnormal shipment of 5,453 tons (Rs.5½ lakhs) from Ecuador, 2,368 tons (Rs.2½ lakhs) from Belgium and 449 tons (Rs.47,000) from Holland were included in " other countries ".

The following table gives the other types of imported sugar :—

	1931–32.	1932–33.	1933–34.
	Rs. (lakhs).	Rs. (lakhs).	Rs. (lakhs).
Sugar, 15 D.S. and below	2	*	†
Molasses	16	11	‡

* Rs. 18,705. † Rs. 456. ‡ Rs. 68,388.

The disposal of the enormous quantities of molasses which are accumulating as a result of the rapid development of the local industry presents a serious problem, which could best be solved by the manufacture of industrial alcohol. Whatever the solution may be, the import trade is now practically extinct.

IMPORTS INTO THE MARITIME STATES OF KATHIAWAR.

In view of the prominence which the trade of the Kathiawar Ports has recently received on account of the growing diversion to them of imports which formerly entered India via Bombay and of the serious loss of Customs revenue suffered by the Government of India (see paragraph on page 52), it will be of interest to include the following table which shows (*a*) the growth of the traffic during the past three years, (*b*) the distribution of imports by countries and (*c*) the share of the various States :—

VALUES.

Twelve Months, 1st April to 31st March.

——	1931–32.	1932–33.	1933–34.
	Rs. (lakhs).	Rs. (lakhs).	Rs. (lakhs).
DISTRIBUTION OF IMPORTS BY COUNTRIES.			
From United Kingdom	64,10,293	87,91,105	1,14,77,615
„ Ceylon	—	39,020	1,53,261
„ Straits Settlements	—	44,141	93,465
„ Hongkong	34,685	38,008	47,604
„ Union of South Africa ...	—	1,078	71,139
„ Kenya Colony	625	1,17,74,211	86,26,103
„ Other British Possessions ...	93,872	92,585	36,052
Total British Empire	65,39,475	2,07,80,148	2,05,05,239
From Russia	27,51,288	92,175	2,58,349
„ Sweden	1,10,240	1,44,266	2,30,276
„ Norway	61,422	1,71,951	1,18,272
„ Denmark	1,381	1,68,166	700
„ Poland	—	47,621	97,161
„ Germany...	33,68,536	37,73,936	33,76,383
„ Netherlands	16,56,034	5,29,429	5,89,478
„ Belgium	20,71,620	25,12,430	23,59,873
„ Luxemburg	—	1,20,605	2,12,267
„ France	3,42,792	2,61,375	3,18,321
„ Italy	1,49,897	53,486	1,04,154
„ Iraq	6,15,310	3,62,372	2,67,772
„ Persia	1,59,751	46,545	2,56,461
„ Java	70,97,530	71,08,434	61,65,002
„ Maskat Territory and Trucial Oman.	5,96,396	4,07,164	1,15,783
„ Other Native States in Arabia...	5,24,100	4,34,347	2,59,637
„ China (exclusive of Hongkong and Macao).	38,003	65,589	74,882
„ Japan	2,25,302	10,13,712	19,64,891
„ Egypt	2,38,501	21,60,805	27,71,717
„ Portuguese East Africa ...	—	7,507	6,01,361
„ United States of America ...	10,31,743	9,56,599	8,67,092
„ Other Foreign Countries ...	68,941	1,38,085	2,64,876
Total Foreign Countries ...	2,11,08,787	2,05,76,599	2,12,74,708
Total	2,76,48,262	4,13,56,747	4,17,79,947
Share of Baroda	55,75,514	58,68,341	48,87,267
„ Bhavnagar	75,85,333	2,33,26,629	2,29,94,631
„ Jafarabad	71,911	35,894	4,23,445
„ Junagadh	24,67,720	13,44,737	23,21,102
„ Morvi	17,68,422	19,91,942	24,88,992
„ Nawanagar	84,11,100	71,94,780	59,57,053
„ Porbandar	17,68,262	15,94,424	27,07,457
Total Imports	2,76,48,262	4,13,56,747	4,17,79,947

A summarised table of the imports by commodities is not available, but the following statement shows the development of a few of the principle items during the past three years :—

Articles.	1931–32.	1932–33.	1933–34.
	Rs. (lakhs).	Rs. (lakhs).	Rs. (lakhs).
Cotton (raw)	3	1,43	1,14
Sugar	1,06	76	75
Iron and Steel (included in following item).	33	36	50
Metals and ores of all kinds	49	63	78
Cotton manufactures	2	14	19
Artificial Silk Manufactures	—	2	7
Machinery	10	21	25
Chemicals	13	13	15
Hardware	3	6	7
Instruments and Apparatus	1	5	7
Oils of all kinds	6	3	11
Paints and Painter's Materials	2	2	3
Paper and Pasteboard	6	7	7
Soap	2	3	3
Rubber manufactures	1	2	1
Motor Cars	4	3	4

It will be observed that raw cotton for use in the mills of Ahmedabad and Upper India, sugar, metals, machinery, cotton manufactures and chemicals constitute the principal items.

The following summarised statistics of the imports into British India from Kathiawar States across the Viramgam-Dhandhuka Customs line are interesting as showing the proportion which finds its way into British India :—

—	1931–32.	1932–33.	1933–34.
	Rs. (lakhs).	Rs. (lakhs).	Rs. (lakhs).
Total dutiable foreign goods passed under concession or agreement.	77	2,25	2,17
Total duty-free foreign goods	15	14	14
	92	2,39	2,31
Total imports into Kathiawar Ports ...	2,76	4,13	4,18
Balance representing consumption in the States or not otherwise accounted for.	1,84	1,74	1,87

APPENDIX I

TEXT OF THE INDO-JAPANESE TREATY.

His Majesty the King of Great Britain, Ireland and the British Dominions beyond the Seas, Emperor of India, and His Majesty the Emperor of Japan, desiring to facilitate trade and commerce between India and Japan, have decided to conclude a Convention for this purpose and have accordingly appointed as their Plenipotentiaries:—

His Majesty the King of Great Britain, Ireland and the British Dominions beyond the Seas, Emperor of India;

For India:

The Rt. Hon. Sir John Allsebrook Simon, G.C.S.I., K.C.V.O., M.P., His Principal Secretary of State for Foreign Affairs;

The Rt Hon. Sir Samuel John Gurney Hoare, Bt., G.C.S.I., G.B.E., C.M.G., M.P., His Secretary of State for India;

His Majesty the Emperor of Japan:

His Excellency Mr. Tsuneo Matsudaira, His Imperial Majesty's Ambassador Extraordinary and Plenipotentiary at the Court of St. James;

Who, having communicated their full powers, found in good and due form, have agreed as follows:—

Article 1.

The territories to which the present Convention applies are, on the part of His Majesty the King of Great Britain, Ireland and the British Dominions beyond the Seas, Emperor of India, British India, together with States in India which, by treaty with His Majesty the King or otherwise, may be entitled to be placed with regard to the stipulations of the present Convention on the same footing as British India (such territories being hereinafter referred to as India); and on the part of His Majesty the Emperor of Japan, all the territories and possessions belonging to or administered by His Majesty the Emperor (such territories being hereinafter referred to as Japan).

Article 2.

Articles produced or manufactured in the territories of one of the High Contracting Parties, on importation into the territories of the other, from whatever place arriving, shall not be subjected to duties or charges other or higher than those imposed on like articles produced or manufactured in any other foreign country.

Article 3.

Notwithstanding anything contained in the present Convention, the Government of India shall have the right of imposing or modifying from time to time special customs duties on the importation into India of articles produced or manufactured in Japan, other or higher than those imposed on like articles produced or manufactured in any other foreign country, at such rates as the Government of India may consider to be necessary to correct the effects of any variation of the exchange value of the yen relative to the rupee subsequent to the 31st day of December, 1933; provided that no modification in any such rate shall be made until it has been in force for at least five weeks.

In imposing or modifying or on being requested by the Government of Japan to modify such special customs duties, the Government of India shall give full consideration to all relevant factors which tend to raise the export prices of articles produced or manufactured in Japan, and shall limit the rates of such duties to what is necessary to correct the effects of any

variation of the exchange value of the yen relative to the rupee on the duty-paid value of articles produced or manufactured in Japan and imported into India.

Reciprocally, the Government of Japan shall have the right of imposing or modifying from time to time special customs duties on the importation into Japan of articles produced or manufactured in India, other or higher than those imposed on like articles produced or manufactured in any other foreign country, at such rates as the Government of Japan may consider to be necessary to correct the effects of any variation of the exchange value of the rupee relative to the yen; provided that such right shall not accrue to the Government of Japan so long as the exchange value of the rupee relative to the yen is not below the value of 0·732 yen, and that no modification of any such rate shall be made until it has been in force for at least five weeks.

In imposing or modifying or on being requested by the Government of India to modify such special customs duties, the Government of Japan shall give full consideration to all relevant factors which tend to raise the export prices of articles produced or manufactured in India, and shall limit the rates of such duties to what is necessary to correct the effects of any variation of the exchange value of the rupee below 0·732 yen on the duty-paid value of articles produced or manufactured in India and imported into Japan.

Article 4.

While reserving to the Government of India and to the Government of Japan the right to make such changes in their customs tariffs as may be necessary for the protection of their own interests, the High Contracting Parties agree that when any modification of its customs tariff by either country results in the trade interests of the other being adversely affected in any appreciable measure, the Governments of the two countries shall, upon the request of the Government of the country adversely affected, forthwith enter into negotiations with the object of reconciling as far as possible the interests of the two countries.

Article 5.

The present Convention shall be ratified. The instruments of ratification shall be exchanged in London as soon as possible. The date on which the instrument of ratification of each of the High Contracting Parties has been completed will be communicated to the other through diplomatic channels, and the present Convention shall enter into force, in advance of the exchange of the instruments of ratification, as from the date on which the latter of the two communications required under the present Article shall have been made.

Article 6.

The present Convention shall remain in force until the 31st day of March, 1937.

In case neither of the High Contracting Parties shall have given notice to the other six months before the said date of his intention to terminate the Convention, it shall continue operative until the expiration of six months from the date on which either of the High Contracting Parties shall have given notice of termination to the other.

In witness whereof the respective Plenipotentiaries have signed the present Convention and have affixed thereto their seals.

Done at London, in duplicate, this twelfth day of the seventh month of the 9th year of Showa, corresponding to the twelfth day of July, 1934.

For India:

(L.S.) JOHN SIMON.

(L.S.) SAMUEL HOARE.

For Japan:

(L.S.) T. MATSUDAIRA.

THE PROTOCOL.

At the moment of proceeding this day to the signature of the Convention regarding the Commercial Relations between India and Japan, the undersigned Plenipotentiaries, being duly authorised to that effect, have agreed as follows regarding the importation of Japanese cotton piecegoods into India:—

Article 1.

For the purposes of the present Protocol:—

The expression " cotton year " means a year beginning on the 1st day of January;

The expression " cotton piecegoods year " means a year beginning on the 1st day of April;

A cotton piecegoods year and the cotton year in which that cotton piecegoods year begins are referred to as " corresponding "; and

The expression " yard " means a linear yard.

Article 2.

The customs duties to be imposed on importation into India of cotton piecegoods manufactured in Japan shall not exceed the following rates:—

(*a*) Plain greys—50 per centum *ad valorem* or 5¼ annas per pound, whichever is higher;

(*b*) Others—50 per centum *ad valorem*.

If hereafter the Government of India should decide to impose a specific duty on cotton piecegoods other than plain greys, it will not impose on such piecegoods, being the manufacture of Japan, a specific duty exceeding 5¼ annas per pound.

Article 3.

(1) If in any cotton year 1 million bales of raw cotton are exported from India to Japan, the quantity of cotton piecegoods which may be exported from Japan to India in the corresponding cotton piecegoods year shall be a basic allotment of 325 million yards.

(2) If the exports of raw cotton from India to Japan in any cotton year are less than 1 million bales, the allotment of cotton piecegoods for the corresponding cotton piecegoods year shall be the basic allotment diminished by 2 million yards for every 10,000 bales of the deficit or for any residual quantity thereof exceeding 5,000 bales.

(3) If the exports of raw cotton from India to Japan in any cotton year exceed 1 million bales, the allotment of cotton piecegoods for the corresponding cotton piecegoods year shall be the basic allotment increased by 1½ million yards for every 10,000 bales of the excess or for any residual quantity thereof exceeding 5,000 bales;

Provided that the allotment of cotton piecegoods shall not in any case exceed 400 million yards for any cotton piecegoods year.

(4) If the exports of raw cotton from India to Japan in any cotton year exceed 1½ million bales, the excess shall be added to the quantity of raw cotton exported from India to Japan in the following cotton year for the purpose of determining the allotment of cotton piecegoods for the cotton piecegoods year corresponding to such following cotton year.

(5) For the purposes of the calculations under the present Article and under Articles 4, 5, 6 and 7, any raw cotton or cotton piecegoods which have been imported and then re-exported shall be excluded.

Article 4.

(1) The allotment of cotton piecegoods which may be exported from Japan to India during the first half of any cotton piecegoods year shall be 200 million yards;

Provided that, if in the first half of any cotton piecegoods year the exports of cotton piecegoods from Japan to India exceed the allotment for the whole of that cotton piecegoods year, the allotment for the first half of the following cotton piecegoods year shall be 200 million yards less such excess.

(2) The allotment of cotton piecegoods which may be exported from Japan to India during the second half of any cotton piecegoods year shall be the annual allotment for that year less 200 million yards;

Provided that, if the quantity exported from Japan to India in the first half of any cotton piecegoods year is less than 200 million yards, as increased or diminished under Article 5, the allotment for the second half of that cotton piecegoods year shall include the quantity of the deficit up to a quantity not exceeding 20 million yards.

Article 5.

Notwithstanding anything hereinbefore contained, (*a*) if less than the allotment for any cotton piecegoods year is exported from Japan to India in that year, the quantity of the deficit up to a quantity not exceeding 20 million yards may be exported in the first half of the following cotton piecegoods year in addition to the allotment for that half-year; and (*b*) a quantity not exceeding 20 million yards of cotton piecegoods may be exported from Japan to India in any cotton piecegoods year, other than the cotton piecegoods year in which the present Protocol terminates, in addition to the allotment for that year; but such excess shall be deducted from the allotment for the first half of the following cotton piecegoods year.

Article 6.

If the present Protocol should come into effect at any time other than the beginning of a cotton piecegoods year, the first cotton year shall, for the purposes of the Protocol, be deemed to begin on the 1st day of January, 1934, and the first cotton piece-goods year on the 1st day of April, 1934.

Article 7.

(1) For the purposes of the present Protocol cotton piecegoods shall be divided into the four categories of: (*a*) plain greys, (*b*) bordered greys, (*c*) bleached (white) goods, and (*d*) coloured (printed, dyed or woven) goods; and the allotment for any cotton piecegoods year shall be divided into sub-allotments among these four categories, consisting of portions of the allotment as follows:—

	Per centum.
Plain greys	45
Bordered greys	13
Bleached (white) goods	8
Coloured (printed, dyed or woven) goods	34

and, save as provided in paragraph (2) the export of cotton piece-goods in each category in any cotton piecegoods year shall be restricted to the said portions.

(2) Transfers may be made from one sub-allotment to another, subject to the following conditions:—

(*a*) The allotment for any cotton piecegoods year shall not thereby be increased;

(*b*) the amount transferred from a sub-allotment for bordered greys or from a sub-allotment for bleached (white) goods shall not exceed

20 per centum of the amount of such sub-allotment, and the amount transferred from any other sub-allotment shall not exceed 10 per centum of the amount of such sub-allotment; and,

(*c*) a sub-allotment for bordered greys or a sub-allotment for bleached (white) goods shall not be increased by more than 20 per centum of the amount of such sub-allotment, and any other sub-allotment shall not be increased by more than 10 per centum of the amount of such sub-allotment.

(3) The principles of the present Article shall apply also to quantities of cotton piecegoods exported from Japan to India under Article 5 in excess of the yearly allotments, as if such quantities were yearly allotments.

Article 8.

Nothing contained in the present Protocol shall be deemed to affect the rights of either High Contracting Party under Article 2 or Article 3 of the Convention regarding the Commercial Relations between India and Japan of this day's date.

Article 9.

The present Protocol shall come into force simultaneously with the Convention regarding the commercial relations between India and Japan of this day's date and shall remain in force until the 31st day of March, 1937.

Done at London, in duplicate, this twelfth day of the seventh month of the 9th year of Showa, corresponding to the twelfth day of July, 1934.

For India:
(L.S.) JOHN SIMON.
(L.S.) SAMUEL HOARE.

For Japan:
(L.S.) T. MATSUDAIRA.

APPENDIX II

AGREEMENT REACHED BETWEEN THE LANCASHIRE TEXTILE DELEGATION AND THE MILLOWNERS' ASSOCIATION, BOMBAY.

Following the conferences between representatives of the Indian and British Cotton Textile Industries which opened in Bombay on 19th September, 1933, an understanding has been reached to which the respective parties are the Millowners' Association, Bombay, and the British Textile Mission to India.

The parties wish to record their conviction that great benefit has been derived by all concerned from the full and frank exchange of views, the personal contacts which have been established and the greater understanding which both sides have secured of each other's position.

The parties are agreed that it would be in the best interests of the industries they represent to maintain and develop in the future the contacts which have been established, and it is hoped that it will become the practice for views to be exchanged whenever circumstances render it desirable.

The following headings of agreement have been adopted on the assumption that the cotton duty is not increased above the present level of half an anna per lb.

(1) It was agreed that the Indian Cotton Textile Industry is entitled, for its progressive development, to a reasonable measure of protection against the imports of United Kingdom yarns and piecegoods. It was also agreed that under present conditions, owing to lower costs and other factors operating in foreign countries, the Industry required a higher level of protection against them than against the United Kingdom.

(2) As regards cotton piecegoods, it was agreed that if and when the revenue position of the country made it possible for the Government of India to remove the general surcharge on all imports imposed in October, 1931, the Indian side would not make fresh proposals with regard to the duties applicable to the United Kingdom imports.

(3) In the matter of cotton yarns, the Indian side has agreed that so far as imports from the United Kingdom are concerned, the duty may be 5 per cent. ad valorem with a minimum specific duty of 1¼ annas per lb.

(4) So far as artificial silk piecegoods are concerned, the Indian side agreed that in the case of the United Kingdom the duties may be as follows:—

30 per cent. ad valorem or 2½ annas per square yard for hundred per cent. artificial silk fabrics; and

30 per cent. or 2 annas per square yard for mixture fabrics of cotton and artificial silk.

(5) In so far as the Empire and other overseas markets for piecegoods and yarns are concerned, it is agreed that any advantages which might be arranged for British goods should be extended to Indian goods, and that India, in markets in which she has no independent quota, should participate in any quota which might be allocated to the United Kingdom. In respect of overseas markets in which Indian mills lack established connections, it is agreed that the Manchester Chamber of Commerce should use its good offices to bring about contacts between Indian manufacturers and British houses which are already established in those markets.

(6) In regard to raw cotton, the Indian side strongly emphasised the urgent necessity of further efforts being made in the United Kingdom to popularise and promote the use of the Indian raw material. They welcomed the undertaking that the British Textile Mission would be prepared to recommend effective action being taken and keep the Indian side regularly in touch with developments. It was further agreed that other avenues of co-operation in this field should be explored in the interests of the Indian cotton grower.

(7) This understanding is limited in its duration to the period ending on 31st December, 1935.

W. Clare Lees,
Chairman, British Textile Mission.

H. P. Mody,
Chairman, Millowners' Association, Bombay.

Bombay,
28th October, 1933.

APPENDIX III

LETTER FROM SIR JOSEPH BHORE, K.C.S.I., K.C.I.E., TO SIR WILLIAM CLARE LEES, O.B.E., REGARDING THE RESULTS OF THE LANCASHIRE DELEGATION'S VISIT TO INDIA.

New Delhi, the 25th October, 1933.

DEAR SIR WILLIAM CLARE LEES,

Before the United Kingdom Textile Delegation leaves India I would express to you and your colleagues the gratification of the Government of India and myself at what—apart from its future potentialities—I conceive to be the visible and immediate consequences of your visit. I am particularly glad to learn that by your discussions with the leading representatives of the Indian cotton textile industry you have succeeded in establishing a greater measure of mutual understanding than has ever existed previously between those whom you represent and the cotton industry of India.

2. You will not expect me to comment upon the outcome of the discussions, but I take this opportunity of stating that the Government of India are in full sympathy with the principle of such industrial conferences as those in which you have just taken part, and they will always be prepared to consider most carefully the results of such deliberations. They hope that the precedent now happily established will be followed in the future whenever circumstances make it opportune so to do.

3. You have made certain representations to the Government of India on behalf of the United Kingdom cotton and artificial silk industries. I can assure you that these representations will be carefully and sympathetically considered. It is impossible, owing to the nature of some of your submissions, to give you an immediate reply, but when the time comes for Government to take decisions on the matters in question, your representations will be borne in mind. You understand, I know, that our economic policy has been and will be framed primarily with a view to the best interests of India. But, subject to that basic condition, we are at all times ready and anxious to assist British trade and to foster and enlarge the trade exchanges between Great Britain and this country.

4. Although a full reply to your case is for the time being impracticable, it is possible to give you an assurance on one point. You have mentioned in the course of your representations that the industries which you represent greatly regret the indeterminate character of the provisions relating to their manufactures in the Trade Agreement which was concluded at Ottawa, although you recognise that the circumstances at the time of the Ottawa Conference did in fact make it difficult if not impossible for the Government of India to negotiate a more precise understanding. I can give the assurance that the Government of India will enter into discussions with His Majesty's Government in Great Britain on this point as soon as the negotiations now proceeding with the Japanese Government are concluded. The Government of India recognise the natural wish of an export trade of such great importance to Great Britain to be included within the scope of the Trade Agreement which now exists between the two countries.

5. In conclusion I wish to convey to you my appreciation of the manner in which you have conducted your negotiations in India. You have made many friends not only for yourselves but for the industries you represent. You have removed many misunderstandings and misconceptions in India, and if on your return to the United Kingdom you are able there to perform the same service, you will have made a valuable contribution towards the creation of more cordial relations between India and your own country. It

is my sincere hope that in due course people in India as in the United Kingdom will come to recognise that no better basis for future trade relations could be evolved than that which the visit of your Mission has initiated. Should this come to pass I am sure that India would play her part and that she would always give a warm welcome and every consideration to any representatives of British Trade who might come, as you have, to discuss common problems.

Yours sincerely,

J. W. BHORE.

Sir William Clare Lees, O.B.E.; J.P.,
Chairman of the United Kingdom Textile Delegation,
Bombay.

APPENDIX IV

VALUE OF TRADE WITH PRINCIPAL COUNTRIES, DISTINGUISHING PRINCIPAL ARTICLES.

TABLE A.

Articles.	Pre-war Average.	1931–32.	1932–33.	1933–34.
	(*In thousands of Rupees.*)			
UNITED KINGDOM.				
Imports therefrom—				
Animals, living	5,02	9,14	6,77	6,07
Apparel	59,29	23,58	23,71	21,40
Arms, Ammunition, etc.	30,60	57,00	37,09	36,86
Artificial Silk Yarn	—	10,58	14,35	12,90
Asbestos	—	11,16	9,46	11,23
Belting for Machinery	36,26	32,51	35,50	30,52
Bobbins	—	23,60	19,16	13,72
Books and Printed matter	41,05	43,59	38,96	41,90
Boots and Shoes	51,33	6,61	6,21	5,80
Building materials	59,89	34,19	25,64	23,70
Carriages and Carts	19,11	3,74	3,45	3,44
Chemicals	69,55	1,40,78	1,40,08	1,49,02
China clay	—	9,05	8.04	7,60
Coal and Coke	41,33	6,17	3,94	2,65
Cordage and rope	4,39	2,88	2,00	2,49
Cotton—				
Raw	58,67	4,16	4,60	4
Twist and Yarn	3,35,18	1,21,82	1,31,80	95,78
Piecegoods—				
Grey	20,73,55	95,54	1,75,95	1,34,96
White	10,87,38	4,02,02	5,26,79	3,68,98
Coloured	11,29,72	2,85,36	4,87,63	3,54,11
Other manufactures	1,40,25	83,01	99,78	88,95
Cutlery	10,53	5,87	6,51	7,81
Cycles and parts	29,40	43,33	51,96	62,67
Drugs and medicines	54,03	66,67	61,16	70,69
Dyeing and tanning substances	6,90	25,31	33,45	31,10
Earthenware and porcelain	30,50	14,30	12,26	12,24
Flax manufactures	28,83	16,79	16,01	15,80
Furniture	10,84	8,39	6,26	8,84
Glass and glassware	22,26	13,21	12,01	11,13
Haberdashery and millinery	61,21	13,51	13,96	12,72
Hardware	1,88,61	96,16	91,44	97,56

TABLE A—*continued.*

Articles.	Pre-war Average.	1931–32.	1932–33.	1933–34.
Cotton—*cont.*		(*In thousands of Rupees.*)		
Instrument, apparatus, etc. ...	1,04,88	1,83,26	1,94,31	2,06,32
Ivory	11,33	5,56	4,66	2,50
Jewellery, etc.	14,51	16,59	32,91	4,26
Jute manufactures	10,09	1,55	1,90	1,39
Leather, including hides, tanned, etc.	38,59	25,07	23,93	22,47
Liquors—				
Ale, beer and porter	45,64	48,81	49,73	45,23
Spirit	69,47	83,08	84,44	89,44
Wines	13,62	5,74	5,72	6,53
Machinery and millwork ...	4,97,69	7,73,18	7,81,22	6,91,14
Manures	1,68	19,74	39,07	40,78
Metals—				
Aluminium	5,38	7,51	9,45	17,48
Brass	6,13	33,08	55,56	53,04
Copper	1,67,45	28,69	29,75	39,94
Iron	28,88	1,96	2,81	3,02
Iron or steel	6,96,13	3,11,52	2,42,05	2,83,31
Lead	13,99	2,96	2,99	5,10
Steel	42,02	26,19	25,96	31,68
Zinc	14,85	6,63	8,28	8,80
Others	27,43	14,67	15,24	16,72
Motor cars and motor cycles, etc.	74,50	91,17	1,15,68	1,54,15
Oils, mineral	22,31	29,22	27,37	29,93
„ vegetable, animal, etc. ...	17,76	10,59	10,54	10,84
Packing, engine and boiler ...	4,98	2,18	2,25	2,65
Paints and painters' materials	56,00	58,95	59,66	63,54
Paper and pasteboard	73,44	75,64	79,83	88,73
Piecegoods of cotton and artificial silk	—	9,61	21,85	18,29
Pitch and tar	8,72	1,96	1,75	1,62
Polishes	9,48	18,15	18,30	20,28
Precious stones	14	2,05	1,93	1,94
Printing materials	14,70	14,46	14,25	16,69
Provisions	1,34,15	1,51,20	1,39,67	1,51,33
Rubber manufactures, including tyres, etc.	16,45	69,34	80,16	1,16,23
Salt	23,44	5,66	4,52	75
Ships, parts of	18,00	9,29	4,13	5,16
Silk manufactures, including yarn	19,07	6,98	11,71	8,15
Soap	56,52	75,05	69,59	63,59
Stationery	41,44	35,95	32,84	35,76
Sugar	25,37	28,17	38,13	38,12
Tallow and stearine	10,43	1,95	1,76	2,15
Tea-chests	41,32	36,95	34,37	38,13
Tobacco	51,83	61,54	34,44	41,13
Toilet requisites	10,35	18,13	20,73	22,15
Toys and requisites for games ...	16,75	10,65	10,46	11,62
Umbrellas	24,71	6,00	3,68	3,56
Woollen manufactures, including yarn	1,85,24	40,53	71,78	78,58
Other articles	1,50,99	3,04,33	2,53,51	4,25,42
Total	91,58,01	44,81,44	48,79,80	47,62,82

TABLE B.

Articles.	Pre-war Average.	1931–32.	1932–33.	1933–34.
JAPAN.		(*In thousands of Rupees.*)		
Imports therefrom—				
Ale, beer and porter	3	3,83	4,41	5,04
Apparel	9,17	20,76	25,48	30,18
Artificial silk	—	2,16,26	2,70,63	1,55,81
Bobbins	—	3,64	4,75	5,21
Boots and shoes	16	48,72	31,57	32,41
Brass, bronze, etc.	7	16,97	40,83	32,53
Brushes and brooms	48	90	1,99	1,51
Buttons of all sorts	—	4,24	7,24	6,81
Camphor	11,48	8,49	11,77	13,60
Carriages	11	2,75	68	89
Cement	1	9,47	8,10	5,64
Chemicals	93	6,37	13,26	22,81
Coal and coke	7,02	16	3	5
Copper	27,99	3,55	6,72	8,89
Cotton, raw	9	2,63	85	—
„ hosiery	65,23	41,59	61,23	72,51
„ piecegoods	6,10	5,45,20	7,85,39	4,43,20
„ yarn	6,16	82,82	1,60,71	95,67
„ other manufactures ...	2,12	9,40	11,59	8,02
Drugs and medicines (other than camphor)	1,72	9,09	7,54	5,72
Earthenware and porcelain ...	4,23	16,74	31,59	25,95
Furniture and cabinetware ...	71	57	1,08	1,17
Glass and glassware—				
Bangles...	5	15,08	22,33	13,39
Beads and false pearls ...	7,61	3,37	5,45	5,16
Bottles and phials	1,00	8,49	11,95	10,26
Funnels, globes, etc.	58	69	98	1,06
Tableware	1,41	3,49	4,18	4,06
Others	3,35	10,90	20,56	23,08
Haberdashery and millinery ...	10,88	10,42	18,09	17,22
Hardware	3,59	15,77	30,11	34,77
Instruments	85	8,47	22,99	30,43
Iron or steel	—	3,76	13,89	27,49
Machinery and millwork ...	63	3,74	4,14	7,75
Matches	28,40	—	5	6
Paints and painters' materials ...	—	4,13	7,45	6,92
Paper and pasteboard	55	9,78	15,92	12,30
Provisions and oilman's stores ...	1,57	1,52	3,61	5,70
Rubber manufactures	—	3,04	13,04	18,30
Silk, raw	1,15	1,59	4,71	6,57
Silk manufactures	1,31,45	95,99	2,01,72	2,10,62
Spices, ginger	3,40	19	18	23
Stationery (excluding paper) ...	2,17	4,74	9,47	9,12
Tea-chests	87	1,04	96	1,89
Toilet requisites	1,31	3,39	8,14	10,02
Toys and requisites for games ...	3,16	9,66	22,86	33,80
Umbrellas and umbrella fittings	4,91	9,88	14,62	17,03
Wood—timber	32	9,45	2,37	3,73
„ —manufactures	71	3,27	5,05	3,72
Woollen manufactures	8	1,52	14,16	33,07
Other articles	10,54	36,45	81,32	1,14,14
Total	3,64,35	13,33,97	20,47,74	16,35,51

TABLE C.

Articles.	Pre-war Average.	1931–32.	1932–33.	1933–34.
		(*In thousands of Rupees.*)		
UNITED STATES.				
Imports therefrom—				
Aluminium	4,26	3,40	55	60
Apparel	33	10,21	7,30	7,17
Arms	80	2,66	86	1,06
Belting for machinery	1,11	10,48	8,43	8,68
Boots and shoes	54	19	10	3
Building materials	88	7,17	11,13	11,08
Carriages	72	83	20	5
Chemicals	22	11,90	14,63	15,54
Clocks and watches	3,82	1,22	78	79
Copper	—	7,51	4,44	3,82
Cotton, raw	27,72	2,23,57	3,84,58	63,98
„ piecegoods	26,44	30,50	32,60	16,69
Drugs and medicines	4,18	19,56	20,83	21,92
Dyeing substances	—	10,99	8,36	10,84
Furniture	1,44	1,98	71	74
Glassware	1,17	1,29	53	60
Hardware	24,72	27,17	16,51	22,76
Instruments	5,86	63,39	53,35	57,25
Iron and steel	48,56	14,19	6,28	6,75
Leather	—	10,37	10,96	8,39
Machinery	24,56	1,22,11	81,12	80,73
Manures	—	37	46	50
Motor cars, etc.	8,49	1,41,46	88,68	97,49
Oils, mineral	2,19,66	3,15,64	1,31,11	1,18,86
Paper and pasteboard	1,21	11,35	8,09	5,77
Provisions	3,80	22,10	18,51	13,75
Rubber	16	83,39	52,38	21,36
Spirit	5,34	14,09	15,63	13,95
Stationery	2,05	3,00	2,32	1,68
Sugar	18	64	6	—
Tobacco	5,90	25,46	57,44	27,10
Toilet requisites	2,22	15,53	17,60	13,30
Wood and timber	6,56	3,15	3,53	3,58
Other articles	15,59	66,75	65,03	61,00
Total	4,49,03	12,83,62	11,25,09	7,17,81

TABLE D.

Articles.	Pre-war Average.	1931–32.	1932–33.	1933–34.
		(*In thousands of Rupees.*)		
GERMANY.				
Imports therefrom—				
Apparel	14,87	6,90	8,58	8,33
Bobbins	—	2,74	3,79	2,85
Building materials	6,72	2,17	1,62	41
Buttons	—	2,70	4,23	3,88
Carriages	2,81	77	25	73
Chemicals...	10,62	46,55	40,48	34,37
Clocks and watches	1,36	4,31	3,54	3,62
Cutlery	7,95	13,23	14,34	13,74
Cycles	1,75	8,23	7,89	6,10
Drugs and medicines	6,19	42,77	43,34	42,79
Dyeing substances	87,40	1,71,36	1,37,17	1,36,79
Glassware	23,69	20,34	17,72	13,44
Hardware	57,24	75,85	1,07,98	86,14
Instruments	13,57	61,42	65,32	55,94
Liquors	19,41	18,43	17,24	14,57
Machinery	30,27	1,12,27	98,06	1,31,77
Manures	2,20	6,15	2,51	2,41
Metals—				
Aluminium	12,16	6,23	3,92	5,94
Brass	1,56	70,41	80,03	50,32
Copper	93,41	28,86	67,24	32,29
Iron	2,86	1,56	4	55
Iron or steel	86,97	41,08	41,75	37,27
Steel	65,19	2,17	3,62	3,68
Zinc	3,24	2,89	3,36	2,61
Motor cars, etc.	5,64	8,83	7,35	5,32
Oils	19,57	8,49	15,91	7,74
Paints and painters' materials ...	5,58	9,35	11,15	9,20
Paper and pasteboard	21,82	27,49	30,12	20,18
Paper-making materials ...	1,61	3,42	9	73
Printing materials	1,02	4,00	4,47	4,93
Provisions	5,50	6,07	2,80	2,04
Rubber manufactures	3,82	19,39	14,72	8,99
Salt	9,46	4,82	9,70	8,17
Stationery	5,04	16,60	20,82	14,54
Sugar	3,84	17,83	33	6
Textiles—				
Artificial silk	—	8,92	11,69	6,79
Cotton manufactures	83,71	8,04	8,92	2,95
Haberdashery	22,10	11,05	13,16	9,71
Silk manufactures	16,81	4,21	4,94	3,19
Wool manufactures	90,62	19,99	24,36	15,80
Toys	11,10	5,43	3,84	3,06
Umbrellas	7,66	11,18	7,23	5,02
Other articles	57,03	75,34	73,10	69,29
Total	9,35,56	10,19,84	10,38,72	8,88,25

TABLE E.

Articles.	Pre-war Average	1931–32.	1932–33.	1933–34.
		(*In thousands of Rupees.*)		
BELGIUM.				
Imports therefrom—				
Artificial silk	—	1,73	1,93	1,26
Arms, etc.	26	3,02	3,65	2,27
Building materials	4,04	3,32	1,94	1,71
Cotton manufactures	42,12	3,51	3,29	1,16
Dyeing and tanning substances	10,82	2,00	1,04	2,02
Earthenware and porcelain ...	3,45	46	54	49
Glass and glassware	16,92	12,69	15,03	10,75
Hardware	5,58	2,97	3,49	2,85
Liquors	1,50	1,40	1,15	1,58
Machinery and millwork ...	1,76	26,78	38,62	42,60
Manures	75	4,07	2,84	1,92
Metals—				
Brass	37	68	61	66
Copper	3,54	1,80	3,78	1,07
Iron	15,95	84	2,13	61
Iron or steel	45,46	1,18,67	93,87	55,75
Steel	63,54	33,90	27,17	27,42
Motor cars, etc.	4,15	1,05	86	24
Paints and painters' materials ...	2,08	3,25	3,36	2,54
Paper and pasteboard	5,00	4,51	3,99	4,28
Precious stones	1	28,65	68,71	55,21
Provisions	1,41	4,36	3,72	3,22
Sugar	29	47	2,66	2,87
Woollen manufactures	2,11	2,02	6,87	4,79
Other articles	40,61	39,42	50,59	38,86
Total	2,76,00	3,01,57	3,41,84	2,66,13

LIBRARY OF THE BOMBAY BRANCH OF THE ROYAL ASIATIC SOCIETY

TABLE F.

Articles.	Pre-war Average.	1931–32.	1932–33.	1933–34.
		(*In thousands of Rupees.*)		
ITALY.				
Imports therefrom—				
Apparel	6,98	3,64	3,14	3,04
Art, works of	45	83	1,13	46
Building materials	2,57	5,20	5,24	3,32
Buttons	—	3,34	5,64	3,66
Chemicals	4,72	15,06	15,14	15,46
Dyeing and tanning substances	1,49	5,28	7,94	3,20
Fruits and Vegetables	8,48	16,42	19,19	20,37
Glassware	4,26	2,49	2,17	2,30
Instruments	1,70	6,10	7,34	7,23
Liquors	78	1,69	2,10	2,14
Machinery	1,44	13,33	7,34	13,16
Metals—				
Aluminium	9	39	22	32
Brass	1,09	1,97	40	3
German silver	—	2,76	5,00	3,80
Quicksilver	—	6,53	8,62	6,08
Others	67	1,94	1,65	3,76
Motor cars, etc.	66	10,63	4,80	4,70
Paper and pasteboard	79	3,53	3,75	2,22
Rubber manufactures	13	16,77	15,03	4,20
Stone and marble	2,48	2,62	4,06	4,19
Sugar	23	—	—	—
Textiles—				
Artificial silk yarn	—	41,29	47,80	37,57
Cotton—raw	11	4	87	—
„ —Twist and yarn ...	4,98	1,23	5	18
„ —manufactures ...	45,22	31,89	22,06	2,21
Haberdashery and millinery ...	4,32	8,52	9,82	6,87
Silk manufactures	19,83	19,56	24,38	5,78
Piecegoods of cotton and artificial silk	—	16,04	21,85	16,32
Wool manufactures	4,07	32,02	74,98	61,03
Other articles	27,30	87,66	73,12	57,68
Total	1,44,84	3,58,77	3,94,83	2,91,28

REPORTS by H.M. Trade Commissioners, Commercial Diplomatic and Consular officers on commercial and financial conditions in the following countries, issued, or in course of preparation, by the Department of Overseas Trade.

A.—During the year 1933.

No.			No.		
545	Algeria, Tunisia and Tripolitania ...	3s. 6d. (3s. 8d.)	541	Japan	3s. 6d. (3s. 8d.)
551	Argentina ...	5s. 0d. (5s. 3d.)	550	Netherlands East Indies ...	4s. 6d. (4s. 9d.)
556	Austria	2s. 0d. (2s. 2d.)	552	Newfoundland ...	2s. 0d. (2s. 1d.)
561	China	4s. 9d. (5s. 0d.)	536	Panama ...	1s. 0d. (1s. 1d.)
548	Czechoslovakia...	2s. 0d. (2s. 1d.)	534	Philippines ...	1s. 6d. (1s. 7d.)
560	Egypt	4s. 0d. (4s. 2d.)	537	Portuguese E. Africa ...	2s. 6d. (2s. 8d.)
538	Guatemala, Honduras and Nicaragua ...	3s. 0d. (3s. 2d.)	543	Siam	1s. 6d. (1s. 7d.)
540	Hungary ...	2s. 0d. (2s. 1d.)	542	Spain	2s. 0d. (2s. 2d.)
559	'Iraq	1s. 6d. (1s. 7d.)	544	United States ...	4s. 0d. (4s. 3d.)
558	Italy	5s. 0d. (5s. 3d.)			

B.—During the year 1934.

No.			No.		
577	Angola	1s. 6d. (1s. 7d.)	580	Netherlands ...	3s. 0d. (3s. 2d.)
578	Australia ...	4s. 6d. (4s. 9d.)	585	Norway	2s. 6d. (2s. 8d.)
563	Belgian Congo ...	2s. 6d. (2s. 8d.)	572	Paraguay ...	1s. 6d. (1s. 7d.)
575	Belgium ...	4s. 0d. (4s. 3d.)	592	Peru	2s. 0d. (2s. 1d.)
583	B. E. Africa ...	3s. 3d. (3s. 5d.)	576	Poland	2s. 0d. (2s. 1d.)
587	Canada	4s. 6d. (4s. 9d).	590	Portugal ...	2s. 6d. (2s. 8d.)
571	Costa Rica ...	1s. 0d. (1s. 1d.)	586	Roumania ...	2s. 0d. (2s. 1d.)
573	Denmark ...	2s. 6d. (2s. 8d.)	566	Salvador ...	1s. 9d. (1s. 10d.)
564	Dominican Rep. and Hayti ...	2s. 3d. (2s. 5d.)	565	South Africa ...	2s. 0d. (2s. 2d.)
569	Finland	2s. 6d. (2s. 8d.)	574	S. and N. Rhodesia and Nyasaland	2s. 6d. (2s. 8d.)
581	France	7s. 0d. (7s. 9d.)	568	Switzerland ...	2s. 0d. (2s. 1d.)
562	French W. Africa	1s. 6d. (1s. 7d.)	589	Syria	1s. 6d. (1s. 7d.)
582	Germany ...	3s. 6d. (3s. 9d.)	591	Turkey	1s. 6d. (1s. 7d.)
579	Greece	2s. 0d. (2s. 2d.)	567	Uruguay ...	1s. 6d. (1s. 7d.)
570	Mexico	1s. 0d. (1s. 1d.)	584	Yugoslavia ...	2s. 0d. (2s. 1d.)
588	Morocco ...	2s. 3d. (2s. 5d.)			

C.—During the year 1935.

No.			No.		
	Brazil	*(In preparation)*		Ecuador... ...	*(In preparation)*
	Brit. W. Indies ...	*(In preparation)*		Honduras ...	*(In preparation)*
	Bulgaria ...	*(In preparation)*		India	*(See Cover)*
	Chile	*(In preparation)*		Nicaragua ...	*(In preparation)*

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